

STIC Search Report Biotech-Chem Library

STIC Database Tracking Number: 184731

TO: Minh-Tam Davis

Location: REM/3a24/3c18

Art Unit: 1642

Case Serial Number: 09/277064

From: P. Sheppard

Location: Remsen Building

Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes	
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From:

Chan, Christina

Sent:

Monday, April 10, 2006 8:16 AM

To:

Davis, Minh-Tam; STIC-Biotech/ChemLib

Subject:

RE: Rush search request for 09/277064

Please tush. Thanks Chris

Chris Chan

TC 1600 New Hire Training Coordinator and SPE 1644 (571)-272-0841 Remsen, 3E89

-----Original Message-----

From:

Davis, Minh-Tam

Sent:

Friday, April 07, 2006 12:27 PM

To:

Chan, Christina

Subject:

Rush search request for 09/277064

Please search in commercial database, issued patent files and PGPUB: SEQ ID NO:12, with size limitation to the size of the sequence. Thank you.

MINH TAM DAVIS

ART UNIT 1642, ROOM 3A24, MB 3C18

27-0830

Searcher:
Searcher Phone:
Date Searcher Picked up:
Date completed:
Searcher Prep Time:
Online Time:

Type of Search											
NA#	_ AA#:										
S/L: (Oligomer:										
Encode/Transl:											
Structure #:	Text:										
Inventor:	Litigation:										

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DIALOG:
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LEXIS/NEXIS:
SEQUENCE SYSTEM:
WWW/Internet:
Other (Specify):

Ö	GenCore version 5.1.7 Copyright (c) 1993 - 2006 Biocceleration Ltd.	
OM protein - protein	OM protein - protein search, using sw model	
Run on: Apri	April 11, 2006, 19:27:15 ; Search time 188 Seconds (Without alignments) 23:371 Million cell updates/sec	
Title: US-0 Perfect score: 51 Sequence: 1 VM	US-09-277-064-12 51 1 VMAGVGSPYV 10	
Scoring table: BLOS Gapo	BLOSUM62 Gapop 10.0 , Gapext 0.5	
Searched: 2443	2443163 segs, 439378781 residues	
Total number of hita	Total number of hite satisfying chosen parameters. 2443163	

geneseqp2003as: * geneseqp2003bs: * geneseqp2004s: * Geneseq 21:* geneseqp1980s:* geneseqp1990s:* geneseqp2000s:* geneseqp2001s:* geneseqp20028:* geneseqp2005s:* Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Tumour an Human HLA Human HER Immunogen HER-2/neu Immunogen MHC class Kinase-as ErbB2 pro HER-2/neu HLA A2 bi Peptide f Cytotoxic Human Her Human HLA HLA class HBR2/neu HER2/neu Human Description Aag88306 1 Aag89058 1 Aag89031 1 Aag89114 1 Abj04191 1 Aag88772 Abb76755 Aay98861 Aag88322 4aw36826 Aab99690 Aae26800 Aea36306 Ade97756 Adm12647 Ado38880 Aag89003 SUMMARIES ADM12647 80 Length Query Match 100.0 0.00 0.001 000000 8888 8 Result No.

Adk72373 HER-2 pep Adm12649 11-key/hu Ado3882 Human Her Adk72377 Human HER		Ady30515 Human spl Adp80498 Human epi Aae20483 Human pro	Human Human BCG-HE	
ADK72373 ADM12649 ADO38882 ADK72377	AAY43967 ADS87905 AEA39008 ADR10480	ADY30515 ADP80498 AAE20483	AAB20484 AAB20482 ADK72375 ADT50879	ADY30511 ADY30514 ADY30513 ADY30509 ADM29352
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RESULT

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

length: 0 length: 200000000

DB seq DB seq

Minimum I Maximum I

Peptide fragment (1.0738) of c-ERB2 binds HLA-A2.1. AAR61525 standard; peptide; 10 AA. (revised)
(first entry) 25-MAR-2003 11-MAY-1995 AAR61525; AAR61525

antigen; epitope; immunogenic target protein; PSA; HBVc; HBVs; EBV; HIVI; plasma specific antigen; hepatitis B virus; Epstein Barr; human immunodeficiency virus; human papilloma virus; p53; c-ERB2; MAGE-1; melanoma antigen-1; core antigen; surface antigen; pharmaccutical composition; in vivo; ex vivo; therapeutic; diagnostic; MHC class I molecule; major histocompatability complex; HLA-A2:1; 9mer; 10mer; anchor; human leukocyte antigen. WO9420127-A1. Homo sapiens

Immunogenic peptide(s) having an HLA-A2.1 binding motif - used for treatment or prophylaxis of cancer, virus infection or autoimmune Kast W; 93US-00027146. 93US-00073205. 93US-00159184. Grey HM, Sette A, Sidney J, 94WO-US002353 WPI; 1994-302678/37. (CYTE-) CYTEL CORP 04-MAR-1994; 05-MAR-1993; 04-JUN-1993; 29-NOV-1993; 15-SEP-1994

AAR59496-R61666 are immunogenic 10mer peptides that contain a HLA-A2.1 and have a binding a dfinity binding motif. These peptides bind HLA-A2.1 and have a binding a dfinity of at least 1% as compared to a reference peptide (AAR71293). AAR61525 has an ICS0 of 0.018 and the sequence occurs at position 773 in the human

Example 5; Page 108; 138pp; English.

diseases

(first entry)

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Nucleic acid encoding variable regions of HLA-restricted non-human T cell receptor specific for tumour antigen - used to identify tumour antigens
                                                                                                                                            cytotoxic T lymphocyte; CTL; immune response; tumour-associated antigen; T-cell receptor; TCR; tumour treatment.
                                                                                                         Immunogenic peptide H7 based on the human Her-2/neu protein.
                                                                                                                                    Her-2/neu protein; human leukocyte antigen A2.1; HLA;
                             AAW36826 standard; peptide; 10 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                               and for tumour therapy.
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                                                                                                                                                                                                                                                          12-SEP-1997.
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                                                       AAW36826;
    RESULT 3
                   AAW36826
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ARR97508 is a peptide capable of activating cytotoxic T lymphocytes (CTLs) which specifically target malignant cells. The peptide corresponds to amino acids 773-782 of human Her-2/Neu protehin. CTL- activating peptides can be used in a vaccine for protecting against tumour cell formation. CTLs activated by the peptides will lyse tumour cells displaying specific peptides. Antibodies against CTL- activating peptides are useful for the identification of other similar compounds which may be useful for treating cancer or virally-infected cells, or for diagnosis. The peptide and vaccines produced provide immunity to a high percentage of different ethnic groups, i.e. those with different HLA alleles
c-ERB2 gene product. Peptides of the invention can induce cytotoxic T lymphocytes which can react with target cells. They can be used for the treatment or prophlyaxis of cancer, eg. prostate cancer or lymphoma, etc. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                     p53; Her-2; Neu; aa; amino acid; CTL; cytotoxic T lymphocyte; target; malignant cell; antigenic; vaccine; immunisation; activation.
                                                                                                                          Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           In vivo activation of tumour-specific cytotoxic T lymphocytes - by contacting with polypeptide(s) derived from human p53 or Her-2/Neu
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                                                                                                                                                                                                                                                                                                                            Cytotoxic T lymphocyte-activating Her-2/Neu-specific peptide.
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                                                                                             100.0%; Score 51; DB 2; Length 10; 100.0%; Pred. No. 0.013; ive 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                              AAR97508 standard; peptide; 10 AA.
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Best Local Similarity 100.
Matches 10; Conservative
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                                                                     Sequence 10 AA;
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Lustgarten J;

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                                                                Synthetic peptides AAW36824-40 are based on the sequence of the human Her-2/neu protein, wherein each sequence contains the anchor motif for human leukocyte antigen (HLA) A2.1. The present peptide is based on positions 773-782. The ability of these peptides to inhibit the binding of an influenza virus matrix protein peptide MI to HLA A2.1 was measured by inhibition of lysis by an MI specific, HLA A2.1 westmicked, cytocoxic Tlymphocyte (CTL) clone. The present protein showed 55% inhibition. The peptides were also tested for their ability to elicit an immune response in vivo. However, only H3 (AAW36824) and H7 (AAW36826) were able to do immunize a transgenic, non-human vertebrate (that has been modified to express at least one HLA antigen), so that the animal produces CTL which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         displays HLA-restricted T-cell receptor (TCR) specificity for the antigen. Nucleic acid encoding variable regions of the alpha and beta chains of such TCRs can be amplified from CTLs produced in the above manner. Cells expressing recombinant TCR are used to identify antigens associated with a tumour and to treat tumours in humans. Transgenic mice are a more convenient source of CTL than the tumour-infiltrating lymphocytes previously used. TCR can be humanised to reduce side-reactions and short peptide derivatives of TCR are more economical to produce than TCR itself, particularly when expressed as a single-chain molecule rather than as a dimer
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Example 1; Page 9; 34pp; English.
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VMAGVGSPYV 10 VMAGVGSPYV 10

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Sequences shown in AAW70053 to AAW70075 represent peptides derived from HER-2/neu (cerB-2) antigen. The peptides can bind to a human leukocyte antigen (HLA), HLA-A2.1 and are used to exemplify the method of invention of producing antigen-specific cytotoxic T cells (CTLB) in vitro. The binds class I major histocompatibility complex (MHC) molecules with antigen presenting cells (APCB) pretreated with pretreatment growth factors, and incubating the APCB with purified CDB cells in the presence of at least 2 incubation growth factors, thereby producing antigen-specific CTLB. A method for specifically killing target cells in a human patient is also provided which comprises obtaining a fluid sample containing CTLB from a patient, contacting the cytotoxic T cells with APCB comprise class I MHC molecules. The pretreated APCB are incubated with a retrieved with a carrier to form a composition. The composition can then be administered to the patient. The activated CTLB which are treating cancers, immune disorders, viral infections, AIDS, hepatitis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Production of antigen-specific cytotoxic T cells - by incubating immunogenic peptide(s) from antigen that binds class I major histocompatibility complex molecules with pre-treated antigen presenting
                                                                                                                                                                                                                                                        Cytotoxic T lymphocyte; CTL; major histocompatibility complex; MHC; human leukocyte antigen; HLA; tumour associated antigen; cancer; antigen presenting cell; APC; immunogenic peptide; immune disorder; viral infection; AIDS; hepatitis; bacterial infection; malaria; fungal infection; tuberculosis; melanoma; HER-2/neu; oerB-2.
                                                                                                                                                                                            HER-2/neu dérived HLA-A2.1 binding peptide 19 (residues 773-782).
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AAW70071 standard; peptide; 10 AA.
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                                                                                                                      22-OCT-1998. (first entry)
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epecific cytotoxic T lymphocyte response. These peptides are are cysteine depleted mutants of a native disease-specific CTL epitope. The cysteine depleted cTL epitopes elicit a stronger or more specific CTL response than the native epitope. The epitopes can be used in a disease-specific immunogen to protect a mammal againer disease in particular melanomas. The peptides may also be used to screen a sample for the presence of an antigen with the same epitope, or with a different cross-reactive epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human leukocyte antigen A2 binding peptide; HLA class I A2; CTL; cytotoxic T-cell lymphocyte; tumour associated antigen; CEA; HER2/neu; MAGE2; MAGE3; p53; vaccine; cancer; cytostatic; immunomodulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                            Disease specific immunogen - comprises disease specific cytotoxic T
lymphocyte epitope used to elicit melanoma specific CTL response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       peptide epitope AAW77119-W77138 were created for human tumour-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HLA A2 binding CTL epitope peptide from Her2/neu SEQ ID NO:11
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                                                                                     Tyrosinase, tyrosinase cytotoxic lymphocyte response,
cytotoxic T lymphocyte, cysteine-depleted; melanoma.
                                                                                                                                                                                                                                                                                                                  Slingluff CL, Hunt DF, Engelhard VH, Kittlesen D;
                                                        HER-2/new synthetic peptide epitope 2.
                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 27; 93pp; English.
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                          16-NOV-1998
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(EPIM-) EPIMMUNE INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAG88772;
                             Fikes J,
Keogh E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present interaction describes a composition of a sequence selected from 25 short amino acid sequences given in AAB99680 to AAB99704. Also described are: (1) a composition (II) comprising one or more peptides, and further comprising at least two epitopes selected from core peptides comprise less than 50 contiguous anino acids that have 100% in more peptides comprise less than 50 contiguous anino acids that have 100% identity with a native peptide sequence; and (2) a vaccine composition (II) comprising an epitope selected from the 25 short amino acid and a pharmaceutical excipient. (I) has cytostatic and immunomodulatory activities and can be used in vaccine production and immunomodulatory activities and can be used in vaccine production and immunomodulatory activities and can be used in vaccine production and immunomodulatory activities and can be used in vaccine production and immunomodulatory activities and can be used in vaccine production and connected antigen or when one connected immune system. In particular, the vaccine compositions of the callular arm of the immune system. In particular, the vaccine and improve the callular and leukocyte antigen (HLA)-A2 supervype and improve the standard of care for patients being treated for breast, colon, or lung
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                                                                                                                                                                                                                                                                 composition (I) comprising at least one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; HER2/neu; epitope; human leukocyte antigen; HLA; T cell;
immune response; vaccine; tumour; cancer; cytostatic; immunostimulant;
tumour-associated antigen; T lymphocyte; cytotoxic T lymphocyte; CTL.
                                                                                                                                                                    Compositions for use in a vaccine for treating, e.g., breast, lung and colon cancer comprises at least one peptide that comprises an isolated epitope of a tumor-associated antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                            Keogh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 51; DB 4; Length 10; 100.0%; Pred. No. 0.013; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HER2/neu epitope HLA-A2 supermotif-bearing peptide #16.
                                                                                           Celis E,
                                                                                           Southwood S,
                                                                                                                                                                                                                                                                    present invention describes a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAG89003 standard; peptide; 10 AA
                                                                                                                                                                                                                                     Claim 1; Page 76; 86pp; English
                                                                                           Sette A, Sidney J,
13-DEC-1999; 99US-0170448P.
05-APR-2000; 2000US-00543608.
30-MAY-2000; 2000US-00583200.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10; Conservative
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                                                               (EPIM-) EPIMMUNE INC
                                                                                                                                          WPI, 2001-381489/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 10 AA;
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                                                                                                             Cheanut R;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAG89003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                           Fikes J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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The present invention describes isolated prepared HER2/neu epitopes (I).

Also described are: (1) a clonal cytotoxic T lymphocyte (CTL) that is
culture in vitro and binds to a complex of an epitope (I), bound to a
human leukocyte antigen (HLA) molecule; (2) a peptide (II) comprising (I)
and a second epitope and the peptide is less than 50 contiguous amino
acids that have 100% identity with a native peptide sequence of HERZ/neu;
(3) a vaccine composition (III) comprising (II) and a pharmaceutical
cxcipient; (4) an isolated nucleic acid encoding a peptide comprising (I);
; and (5) an isolated nucleic acid encoding (II). (I) has cytostatic and
immunostimulant activities, and can be used in vaccines. (I), (II) and
(III) are useful for inducing cellular immune responses (I), (II) and
(III) are useful for inducing cellular immune responses (II), (II) and
contioring or evaluating an immune response to a tumour-associated
monitoring or evaluating an immune response to a tumour-associated
detecting the presence of bound T lymphocyte sample form a patient and
detecting the presence of bound T lymphocyte to (I) or (II). Epitope
based vaccines mean that immunosuppressive epitopes that may be present
in whole antigens may be avoided. Selected epitopes and way be combined to
enhance immunogenicity. The possible pathological side effects caused by
infectious agents or whole protein antigen is eliminated. The vaccine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumour variability and reducing the likelihood of tumour escape due to
antigen loss. AAG88266 to AAG89121 represent amino acid sequences used in
the exemplification of the present invention
                                                                                                                                                                                                               An isolated prepared HER2/neu epitope useful in a vaccine for inducing cellular immune responses for the prevention and treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       selected antigens from the same pathogen. Epitope-based anti-tumour vaccines provides the opportunity to combine epitopes derived from multiple tumour-associated molecules addressing the problem of tumour-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; HER2/neu; epitope; human leukocyte antigen; HLA; T cell;
immune response; vaccine; tumour; cancer; cytostatic; immunostimulant;
tumour-associated antigen; T lymphocyte; cytotoxic T lymphocyte; CTL.
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    Celis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cheanut R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HER2/neu A2 supermotif crossbinding peptide #16.
    Southwood S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAG88772 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 189; 199pp; English.
Sette A, Sidney J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-DEC-2000; 2000WO-US033591.
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hes 10; Conservative
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                                                                                                                              WPI; 2001-374995/39
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Chesnut R,

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The present invention describes isolated prepared HER2/neu epitopes (I).

Also described are: (1) a clonal cytotoxic T lymphocyte (CTL) that is culture in vitro and binds to a complex of an epitope (I), bound to a human leukocyte antigen (HLA) molecule; (2) a peptide (II) comprising (I) and a second epitope and the peptide is less than 50 contiguous amino acids that have 100% identity with a native peptide sequence of HER2/neu; (3) a vaccine composition (III) comprising (II) and a pharmaceutical excipient; (4) an isolated nucleic acid encoding a peptide comprising (I); and (5) an isolated nucleic acid encoding (II). (I) has cytostatic and immostimulant activities, and can be used in vaccines. (I), (II) and (III) are useful for the prevention and treatment of cancer. (I) and (II) are useful for monitoring or evaluating an immune response to a tumour-associated antigen when incubated with a T lymphocyte sompte form a patient and antigen when incubated with a T lymphocyte to (I) or (II). Epitope based vaccines mean that immunosphressive epitopes that may be present in whole antigens may be avoided. Selected epitopes may be combined to in whole antigens may be avoided. Selected epitopes and to the companion of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tumour variability and reducing the likelihood of tumour escape due to antigen loss. AAG88266 to AAG89121 represent amino acid sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antiviral; anti-HIV; cytostatic; epitope; HLA A2.1;
human leukocyte antigen; immunotherapy; cancer; viral infection; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     enhance immunogenicity. The possible pathological side effects caused by infectious agents or whole protein antigen is eliminated. The vaccine provides the ablity to direct and focus an immune response to multiple selected antigens from the same pathogen. Epitope-based anti-tumour vaccines provides the opportunity to combine epitopes derived from multiple tumour-associated molecules addressing the problem of tumour-
                                                                                                                                                                                                                                                  An isolated prepared HER2/neu epitope useful in a vaccine for inducing cellular immune responses for the prevention and treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour antigen epitope HER-2/neu 773 presented by HLA A2.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 51; DB 4; Length 10; 100.0%; Pred. No. 0.013;
                                                                                                              Southwood S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                      Example 2; Page 179; 199pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABB76755 standard; peptide; 10 AA.
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                                                                                                           Sidney J,
  99US-00458299
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Best Local Similarity 100.
Matches 10; Conservative
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                                                    (EPIM-) EPIMMUNE INC
                                                                                                                                                                                          WPI; 2001-374995/39
                                                                                                              Sette A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 10 AA;
10-DEC-1999;
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                                                                                                         Fikes J,
Keogh B;
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Treating a subject with cancer comprises combining the CD+8 cells, which are stimulated with non-naturally occurring antigen-presenting cell line, with adherent blood monocytes and inoculating the subject with CD8+
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                                                                                                                           Identifying subdominant or cryptic epitopes, useful in immunotherapy of cancer and viral infection, comprises testing modified, non-immunogenic peptides for induction of cytotoxic T cells.
                                                                                                                                                                                                                      The present invention relates to subdominant/cryptic epitopes that are presented by HLA (human leukocyte antigen) Class I molecule A2.1. The epitopes or chimeric polypeptides containing them and nucleic acid encoding them are useful for preventative or curative immunotherapy of cancer and viral infections, particularly where used as vaccines. The present peptide was used to illustrate the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human, cancer, breast cancer; ovarian cancer; melanoma; cell therapy; epitope; human leucocyte antigen; HLA-A2.1.
                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 51; DB 5; Length 10; 100.0%; Pred. No. 0.013;
                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human HLA-A2.1 restricted HER-2/neu peptide epitope #6.
                                                                Gross DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jackson MR,
                            (INRM ) INSERM INST NAT SANTE & RECH MEDICALE.
                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                Tourdot S, Scardino A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leturcq DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAE26800 standard; peptide; 10 AA.
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                                                                                                                                                                                           Example 1; Page 12; 62pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PHARM INC
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21-JUL-2000; 2000FR-00009591
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                                                                                                                                                                                                                                                                                                                                                                                                         10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ORTH ) ORTHO-MCNEIL
                                                                                            WPI; 2002-189846/25
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                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                Kosmatopoulos K,
                                                                                                                                                                                                                                                                                                                                         Sequence 10 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
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Heiskala M;
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                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                            Local
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AAE26800
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Gaps

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0; Indels

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The invention relates to a novel method for treating viral infection in a subject. The method comprises preparing an antigen presentation cell lineage (inAPC), collecting CD8+ cells from the subject, stimulating CD8+ cells sing the presence of interleukin-2 (IL-2) and/or IL-7, mixing peripheral blood monocytes from the subject, subjecting the components to gamma irradiation, combining the CD8+ suspended solid to the subject. The method of the invention demonstrates virucide and cytostatic activities and may be useful for treating a viral infection or tumor in a subject via cell therapy. The current sequence is that of a muman HRR-2/neu cytotoxic T-1ymphocyte epitope peptide of the invention which was incorporated into a Drosophila
method is useful for treating cancer e.g. ovarian cancer, breast cancer and melanoma etc. It is also useful in cell therapy. The present sequence is human leukocyte antigen AZ (HIA-AZ).1 restricted peptide epitope used to treat breast and ovarian cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Treating a subject with cancer comprises combining the CD+8 cells, which are stimulated with non-naturally occurring antigen-presenting cell line, with adherent blood monocytes and inoculating the subject with CD8+
                                                                                                                                                                                                                                                                                                                                                                                                                                              viral infection; virucide; cytostatic; tumor; neoplasm; cell therapy;
                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Richards JM;
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                                                                                                                                                                                                                                                                                                                                                                                                                Human HER-2/neu 773-782 cytotoxic T-lymphocyte epitope peptide.
                                                                                                                ch 100.0%; Score 51; DB 5; Length 10; I Similarity 100.0%; Pred. No. 0.013; 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peterson PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 3; SEQ ID NO 16; 65pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Leturco DJ, Moriarty AM, Jackson MR,
                                                                                                                                                                                                                                                                                                              AEA36306 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ORTH ) ORTHO-MCNEIL PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-NOV-2003; 2003JP-00377653,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-FEB-2001; 2001US-0270252P.
                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             presenting cell.
                                                                                                                                                                                                                       1 VMAGVGSPYV 10
                                                                                                                                                                                         1 VMAGVGSPYV 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-667033/71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antigen; HER-2/neu.
                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JP2005139118-A.
                                                                                       Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                11-AUG-2005
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    suspension
                                                                                                                                                                                                                                                                                                                                                AEA36306;
                                                                                                                       Query Match
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                                                                                                                                                         datches
                                                                                                                                                                                                                                                                            RESULT 11
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The invention relates to a polypeptide capable of specifically activating cytotoxic T lymphocytes (CTLs) in vivo which can then specifically target cytotoxic T lymphocytes (CTLs) in vivo which can then specifically target caliscapable of lysing tumour cells displaying a specific cytotoxic T cells capable of lysing tumour cells displaying a specific cytotoxic T cells capable of lysing tumour cells displaying a specific cytotoxic T cells that will target a specific population of cells in vivo, generating cTL cells that will target a specific population of cells, specifically killing target cells in an individual using specific, activated CTLs, crisus esaponsive to a tumour-associated antigen, identifying specific TCLs responsive to a specific T cell epitope, detecting specific cTLs having receptors capable of binding a specific T cell epitope in a culbody molecule that immunoreacts with the polypeptide and a hybridoma capable of secreting the above antibodies in an individual, an cativated CTLs and the polypeptide is useful for provoking an immune corresponse to a tumour-associated antigen in mammal and the reaction occurs in vitro. The CTL spitope peptide is useful for activating CTLs in vivo with specificity for particular antigenic peptides, and these activated CTLs in vitro and enterchiant antigenic peptides, and these activated CTLs in vitro and enterchiant antigenic peptides, and these activated CTLs are useful in the diagnosis and treatment of variety of disease conditions such as cancer, tumours, neoplassis, viral and retroviral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infections, and autoimmune response. The present sequence is a CTL epitope of the invention derived from the tumour associated antigen Her-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for activating cytotoxic T lymphocytes in vivo liagnosis and treatment of variety of disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTL; cytotoxic C lymphocyte; epitope; p53; cytostatic; anti-tumour; virucide; immunosuppressive; vaccine; human; immune response; tumour-associated antigen; cancer; tumour; neoplasm; viral infection; retroviral infection; autoimmune response; Her-2; Neu.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 51; DB 6; Length 10; ilarity 100.0%; Pred. No. 0.013; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel polypeptide useful for activating cytotoxic which are useful in the diagnosis and treatment o conditions such as cancer, tumors, and neoplasia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human Her-2/Neu-derived CTL epitope HER-7.
                                                                                                                                                                                                                                  ABU63012 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 5; Page 52; 77pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-00860232.
                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
NPI; 2003-512514/48.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003064916-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              38-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                      16-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-APR-2003
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                                                                                                                                                                                                                                                                                                              ABU63012;
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ABUG 3012
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Gape

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Local Similarity nes 10; Conserva

Best Loca Matches

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Gaps

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100.0%; Score 51; DB 5; Length 10; 100.0%; Pred. No. 0.013; tive 0; Mismatches 0; Indels

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1 VMAGVGSPYV 10
VMAGVGSPYV
                                                                                      GREY H M.
                                                                                        SETTE A.
SIDNEY J.
                                                                            05-MAR-1993;
                                                                              04-JUN-1993;
                                                                                29-NOV-1993;
02-DEC-1994;
                                                                    02-OCT-2003
                ADE97756;
                                                                                              Grey HM,
                                                                                        (SETT/)
(SIDN/)
                                                                                     (GREY/)
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cytostatic; anti-inflammatory; hepatotropic; virucide; anti-HIV; nephrotropic; neuroprotective; antiarthritic; antirheumatic; immunosuppressive; demantaclogical; muscular; nephrotropic; thyromimetic; haemostatic; antithyroid; antianaemic; anabolic; hypertensive; immunogenic peptide composition; immune response; prostate cancer; lymphoma; cytomegalovirus; CM AIDS; renal carcinoma; cervical carcinoma; lymphoma; cytomegalovirus; CMV; condlylloma acuminatum; autoimmune associated disorder; multiple sclerosis; rheumatoid arthritis; Sjogren syndrome; scleroderma; polymyositis; dermatomyositis; arkylosing spondylitis; mysathenia gravis; MG; bullous pemphigoid; pemphigus; glomerulonephritis; Goodpasture's syndrome; pemphigoid; pemphigus; glomerulonephritis; doctopasture's syndrome; anaemia; diomathic thrombocytenania; Hashimoto's disease; pernicious anaemia; diomathic thrombocytenania; Hashimoto's disease; pernicious anaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      idiopathic thrombocytopenic purpura; Grave's disease; Addison's disease; human leukocyte anitgen A2.1; HLA A2.1; immunogenic HLA-A2.1 binding peptide.
                                                                                                                                                                                                                                                                                                                                                  Immunogenic HLA-A2.1 binding peptide #238;
ADE97756 standard; peptide; 10 AA
                                                                                                                                                                                                                                       12-FEB-2004 (first entry)
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US2003185822-AI. - Lamonth UR.d (U) 1021 93US-00073205. 93US-00159184. 94US-00349177. 03-APR-2002; 2002US-00116557. 93US-00027146

Sidney J; Sette A,

WPI; 2004-041186/04

Immunogenic peptide composition for preventing, treating or diagnosing pathological states, e.g. prostate cancer, hepatitis B and C, Acquired Immunodeficiency Syndrome, and renal carcinoma, includes conserved residues at specified postitions.

Example 11; Page 25; 38pp; English

The invention describes an immunogenic peptide composition comprising 9 residues including a first conserved residue at a second position from Netarinus, and a second conserved residue at C-terminal position. The inventive peptide composition is used to elicit an immune response against a desired antigen for preventing, treating or diagnosing pathological states, e.g. prostate cancer, hepatitis B, hepatitis C, AIDS, renal carcinoma, lymphoma, cytomegalovirus (CMV), and condlylloma acuminatum. It is also used to treat autoimmune associated disorders, e.g. multiple sclerosis, rheumatoid arthritis, systemic lubus erythematosus, juvenile rheumatoid arthritis, ankylosing spondylitis, myasthemia gravis (MG), bullous pemphigoid, pemphigus, glomerulonephritis, Goodpasture's syndrome, autoimmune hemolytic anemia,

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Hashimoto's disease, permicious anaemia, idiopathic thrombocytopenic purpura, Grave's disease, and Addison's disease. The invention defines positions within a motif enabling the selection of the peptides, which will bind efficiently to human leukocyte anitgen (HLA) A2.1. This is the amino acid sequence of an immunogenic HLA-A2.1 binding peptide.
                                                                                                                                                                          Gaps
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                                                                                                                                                                         0; Indels
                                                                                                                                       100.0%; Score 51; DB 8; 100.0%; Pred. No. 0.013;
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                                                                                                                           Query Match
Best Local Similarity 100.0
"...hes 10, Conservative
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                                                                                                       Sequence 10 AA;
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ADM12647 standard; peptide; 10 AA. ADM12647; RESULT 14 ADM12647

(first entry)

20-MAY-2004

antigen presentation enhancing hybrid polypeptide; mammalian Ii-Key; MHC class II; antibacterial; virucide; fungicide; antirheumatic; antiarthritic; neuroprotective; dermatological; immunosuppressive; antiinflammatory; antidiabetic; antithyroid; immune; rhemmatory; antidiabetic antithyroid; immune; rhemmatoria; antilial sclerosis; lupus erythematosus; diabetes mellitus; myasthenia gravis; autoimmune thyroiditis; scleroderma; dermatomyositis; pemphigus. MHC class I epitope of human Her-2/neu, 16-6-9.

L7-SEP-2002; 2002US-00245871. JS2003235594-A1 Homo sapiens 25-DEC-2003.

14-SEP-1999; 99US-00396813. 17-JUL-2002; 2002US-00197000. (ANTI-) ANTIGEN EXPRESS INC.

Humphreys R,

WPI; 2004-070554/07.

Novel Ii-Key/antigen presentation enhancing hybrid polypeptide, useful for treating infections, rheumatoid arthritis, multiple sclerosis, lupus erythematosus and diabetes mellitus.

Example 16; Page 55; 87pp; English.

The invention relates to a novel antigen presentation enhancing hybrid polypeptide. The novel polypeptide has an N-terminal element consisting of 4-16 residues of a mammalian 11-Key peptide and its non-N-terminal cletton modifications, a chemical structure covalently linking the N-terminal element to an MHC class II-presented epitope of a C-terminal element comprises an antigenic epitope, which binds to an antigenic peptide binding site of an MHC class II molecule. The antigen presentation enhancing hybrid polypeptide has the following activities; antibacterial, virucide, fungicide, antiheumatic, antibacterial, virucide, fungicide, antiheumatic, antidiabetic, and antithyroid. The antigen presentation enhancing hybrid polypeptide is useful for modulating the immune response in an individual and for treating infections (such as bacteria, virus, parasite and fungus), rheumatoid arthritis, multiple sclerosis, lupus erythematosus, diabetes mellitus, myasthenia gravis, autoimmune

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a non-naturally occurring protein or polypeptide (I) modified by recombinant DNA techniques comprising: a C-terminal element comprising an MHC Class II-presented epitope; an N-terminal element comprising an II-key motif; and an intervening element comprising a sequence of 4-11 amino acid residues where the modification by eccombinant DNA techniques taking place within elements (b) and (c). Also described are methods for: suppressing or enhancing an immune response directed toward an MHC (major histocompatibility complex) Class II-
                                                                                                                                                                                                                                                                                                                                                                                                                                       Antibacterial, Virucide, Fungicide, Antiparasitic, Antiarthritic, Antirheumatic, Neuroprotective, Antiinflammatory; Dermatological; Immunosuppressive, Antidabetic, Antibaroid, Antiasthmatic, Antiallergic, Cytostatic, Antipsorialic, Gene Therapy, Vaccine, MHC Class II; Ii-key motif, immune response, anthrax; EBOLA, HIV, influenza, vaccinia virus, infection; bacterium, virus; parasite; fungus; rickettsia, rheumatoid arthritis; multiple sclesosis, lupus erythematosus; diabetes mellitus; myasthenia gravis; autoimmune thyroiditis; scleroderma; dermatomyositis; penphigus; allergic rhinitis; topical dermatitis; colitis; cancer; psoriasis;
thyroiditis, scleroderma, dermatomyositis and pemphigus. This sequence represents a mammalian Ii key related peptide epitope of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New non-naturally occurring protein or polypeptide modified by recombinant DNA techniques, useful for treating multiple sclerosis, diabetes mellitus, myasthenia gravis, scleroderma, allergic rhinitis,
                                                                                                                          Gaps
                                                                                                                            ;
0
                                                                                      Length 10;
                                                                                    ch 100.0%; Score 51; DB 8; Length 10
1 Similarity 100.0%; Pred. No. 0.013;
10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                         Human Her-2/neu MHC class II-presented epitope #67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 16; Page 57; 90pp; English.
                                                                                                                                                                                                                                                                                           ADO38880 standard; peptide; 10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          colitis, cancer or psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-SEP-2002; 2002US-00253286
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                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                    1 VMAGVGSPYV 10
                                                                                                                                                               1 VMAGVGSPYV 10
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                                                                                      Query Match
Best Local Similarity
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                                                     Sequence 10 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
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                                                                                                                                                                                                                                                                                                                                ADO38880;
                                                                                                                                                                                                                                                   Matches
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presented epitope of interest. Suppressing an immune response directed toward an MHC Class II-presented epitope of interest comprises; providing a nucleic acid sequence encoding the MHC Class II-presented epitope of interest, the nucleic acid sequence encoding an Ii-Key motif located 4-11 amino acids upstream from the N-terminal residue of the MHC Class II-presented epitope of interest; and modifying the Ii-Key motif to decrease

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its conformance to the archetypal Ii-Key regulatory motif. Enhancing an immune response directed toward an MHC class II-presented epitope of interest comprises: providing a nucleic acid sequence encoding the MHC class II-presented epitope of interest, the nucleic acid sequence lacking an II-key motif located 4-11 amino acids upstream from the N-terminal residue of the MHC Class II-presented epitope of interest; and modifying the nucleic acid sequence to introduce an II-key motif appropriately compacted from the MHC Class II-presented epitope of interest; and modifying the nucleic acid sequence to introduce an II-key motif appropriately compacted from the MHC Class II-presented epitope. The protein or polypeptide of interest corresponds to a protein or polypeptide of interest corresponds to a protein or polypeptide of interest corresponds to anthrax, EBOLA, HIV or influenza, polypeptide (I) modified by recombinant DNA techniques is useful for treating infectious diseases caused or associated with infection by a correction, virus, parasite, fungus, rickettsia or other infectious corresponds to associated with infectious also useful for treating rheumatoid arthritis, multiple solerosis, lupus erythematosus, diabetes mellitus, myasthemia gravis, allergic rhinitis, topical dermatitis, colitie, pemphigus, asthma, allergic rhinitis, topical dermatitis, colitie, cancer, psoriasis or denna college and not allergic thinitis, sequence represents the amino acid sequence of an MHC class II-presented epitope used in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
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Best Local Similarity
Matches 10; Conserv
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9140, Ap 9242, Ap 9242, Ap 11315, A 11317, A 3017, Ap 9127, Ap 9127, Ap 9143, Ap 11317, Ap

Sequence Seq

US-11-045-024-9140
US-11-045-024-9242
US-11-045-024-13155
US-11-045-024-13157
US-11-045-024-13177
US-11-045-024-3017
US-11-045-024-9142
US-11-045-024-9143
US-11-045-024-9143
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US-11-045-024-9245
US-11-045-024-9245
US-11-045-024-9245
US-11-045-024-13176
US-11-045-024-11316
US-11-045-024-11316
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US-11-045-024-11316
US-11-045-024-11316
US-11-045-024-11316

3, App Appli

ALIGNMENTS

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Sequence 620, App
Sequence 135, App
Sequence 2492, App
Sequence 619, App
Sequence 619, App
Sequence 619, App
Sequence 7, Appli
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Sequence 12, Appli
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                                                                                                       April 11, 2006, 19:24:25 ; Search time 24 Seconds (without alignments) 12.997 Million cell updates/sec
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1: /SIDSS/ptodata/1/pubpaa/USO8 NEW PUB.pep:*

2: /SIDSS/ptodata/1/pubpaa/USO8 NEW PUB.pep:*

3: /SIDSS/ptodata/1/pubpaa/USO7 NEW PUB.pep:*

4: /SIDSS/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*

5: /SIDSS/ptodata/1/pubpaa/USO9 NEW_PUB.pep:*

6: /SIDSS/ptodata/1/pubpaa/USI0_NEW_PUB.pep:*

7: /SIDSS/ptodata/1/pubpaa/USI0_NEW_PUB.pep:*

8: /SIDSS/ptodata/1/pubpaa/USI1 NEW_PUB.pep:*
GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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US-11-045-024-7995
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US-11-045-024-7995
US-11-045-024-6491
US-11-045-024-6491
US-11-045-024-6491
US-10-96-483-5
US-10-12-83-12
US-11-12-83-12
US-11-045-024-2949
US-11-045-024-2950
US-11-045-024-9135
US-11-045-024-9135
US-11-045-024-9135
US-11-045-024-9136
US-11-045-024-9136
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US-11-045-024-9136
US-11-045-024-11313
US-11-045-024-11313
US-11-045-024-11313
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                                                                                                                                                                                                                                                                                                                  184161 segs, 31191982 residues
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Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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51
1 VMAGVGSPYV 10
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Match Length
                                                                         protein search,
                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0 Maximum DB seq length: 10
                                                                                                                                                                                 Title:
Perfect score:
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                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                  Searched:
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                                                                                                           Run on:
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No.
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	VACCINES	0; Gaps	
SULT 1 -11-033-039-620 Sequence 620, Application US/11033039 Publication No. US20060002947A1 GENERAL INFORMATION: APPLICAVN: HUPPHREYS, ROBERT	TITLE OF INVENTION LI-REY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES FILE REFERENCE: REH-2017USO1 CURRENT APPLICATION NUMBER: US/11/033,039 CURRENT PILNIG DATE: 2002-09-17 PRIOR PILING DATE: 2002-09-17 PRIOR PILING DATE: 2002-09-14 PRIOR PILING DATE: 2002-09-14 PRIOR PILING DATE: 2002-09-14 NUMBER OF SEQ ID NOS: 1452 SOFTWARE: PARENTIN VERSION 3.3 ESOTTWARE: PARENTIN VERSION 3.3 ENGRH: 10 TYPE: PARENTIN VERSION 3.3	/ Match 100.0%; Score 51; DB 7; Length 10; Local Similarity 100.0%; Pred. No. 0.00065; Les 10; Conservative 0; Mismatches 0; Indels 1 vMaGVGSPYV 10	SULT 2 -10-510-101-135 Sequence 135, Application US/10510101 Sequence 135, Application US/10510101 Sublication No. US20060018915A1 GRNERAL INFORMATION: APPLICANT: Epidemine Inc. APPLICANT: Fikes, John APPLICANT: Tangri, Shabnam APPLICANT: Sette, Alessandro TITLE OF INVENTION: Heteroclitic Analogs and Related Methods FILE REFERENCE: 2060.009PCOS CURRENT APPLICATION NUMBER: US/10/510,101
RESULT 1 US-11-033-620 ; Sequence 620, Applic; Publication No. US20; GENERAL INFORMATION: APPLICANT: HUMPHERY	TITLE OF INVESTION: FILE REFERENCE: REH-2 CURRENT APPLICATION NOW FILE RELING DATE: PRIOR APPLICATION NUM FRIOR FILING DATE: 20 FRIOR FILING DATE: 20 FRIOR FILING DATE: 20 FRIOR FILING DATE: 20 FRIOR FILING DATE: 10 FRIOR FILING DATE: 10 NUMBER OF SEQ ID NOS: 300FHARE: 10 LENGTH: 10 TYPE: PRIOR FILING DATE: 10 CORGANISM: HOMO SADIE US-11-033-039-620	Query Match Best Local Sim Matches 10; Qy 1 VM Db 1 VM	RESULT 2 US-10-510-1135 Sequence 135, Applica Fublication No. US200 GENERAL INFORMATION: APPLICANT: Epimmune APPLICANT: Ishloka, APPLICANT: Tangit, APPLICANT: Tangit, APPLICANT: Sette, A TITLE OF INVENTION: FILE REFERENCE: 2060 CURRENT APPLICATION: CURRENT APPLICATION:

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APPLICANT: Settle, Argenter, Applicant: State, Argenter, Applicant: State, Argenter, State, Applicant: State, Applicant: State, Applicant: Southwood, Scott Applicant: Livingston, Brian Applicant: Livingston, Brian Applicant: Chesnut, Robert Applicant: Chesnut, Robert Applicant: Chesnut, Robert Applicant: Cals, Esteban Applicant: Cals, Bateban Applicant: Epimmune Inc. Applicant: 1000.040007 TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions FILE REFERENCE: 2006-040007 CURRENT Application NUMBER: US 90/412,863 PRIOR PILING DATE: 1999-10-05 PRIOR FILING DATE: 1999-10-05 PRIOR FILING DATE: 1999-03-05 PRIOR FILING DATE: 1993-03-05 PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Inducing Cellular Responses to Human Immunodeficienc Virus-1 Using Peptide and Nucleic Acid Compositions
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Pred. No. 1.4e+05;
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PRIOR FILING DATE: 1993-06-04
PRIOR FILING DATE: 1993-06-06
PRIOR FILING DATE: 1993-06-06
PRIOR FILING DATE: 1993-06-06
PRIOR FILING DATE: 1993-01-06
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR PILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: FREUSEQ for Windows Version 4.0
SEQ ID NO 7995
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Publication No. US20050271676A1
                                                                                                                                                               Sequence 7995, Application US/11045024
Publication No. US20050271676A1
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Southwood, Scott
Livingeton, Brian
Cheenut, Robert
Baker, Denise Marie
Cells, Bsteban
Kubo, Ralph
Grey, Howard M.
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71.4%;
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Best Local Similarity 71.4
Matches 5; Conservative
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   3 GVGSPQI 9
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CURRENT APPLICATION NUMBER: US/11/045,024

PRIOR APPLICATION NUMBER: US/11/045,024
                                                                                                                                                                                                                                                                                                                                                                                          ) OTHER INFORMATION: Synthetic peptide derived from Homo sapiens Her2/neu US-10-510-101-135
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Pred. No. 1.4e+05;
0; Mismatches 1
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PRIOR FILING DATE: 1999-10-05
PRIOR PILING DATE: 1993-03-05
PRIOR PILING DATE: 1993-03-05
PRIOR PILING DATE: 1993-06-04
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR FILING DATE: 1993-06-04
PRIOR FILING DATE: 1993-06-06
PRIOR FILING DATE: 1993-11-29
PRIOR FILING DATE: 1994-03-04
PRIOR FILING DATE: 1994-03-04
PRIOR PILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: PRECEC FOR WINGOWS VERSION 4.0
SEQ ID NO 2492
LENGTH: 9
PRIOR APPLICATION NUMBER: US 60/413,471
PRIOR FILING DATE: 2002-09-26
PRIOR APPLICATION NUMBER: US 10/116,118
PRIOR FILING DATE: 2002-04-05
NUMBER OF SEQ ID NOS: 196
SOFTWARE: Patentin version 3.2
SEQ ID NO 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIOR FILING DATE: 2005-01-28
RIOR APPLICATION NUMBER: US 09/412,863
RIOR FILING DATE: 1999-10-05
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                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence
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Best Local Similarity 88.9%;
Matches 8; Conservative
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Grey, Howard M.
Epimmune Inc.
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Gaps

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APPLICANT: Grey, Howatu N.
APPLICANT: Grey, Howatu N.
TITLE OF INVENTION: Unducing Cellular Responses to Human Immunodeficiency
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
FILE REPERENCE: 2060.040007
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT APPLICATION NUMBER: US/11/045,024
CURRENT FILING DATE: 1993-10-05
PRIOR PRILING DATE: 1993-03-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR PRILING DATE: 1993-03-05
PRIOR APPLICATION NUMBER: US 08/103,205
PRIOR PRILING DATE: 1993-06-04
PRIOR PRILING DATE: 1993-11-29
PRIOR PRILING DATE: 1994-12-01
PRIOR APPLICATION NUMBER: US 08/347,610
PRIOR PRILING DATE: 1994-12-01
PRIOR PRILING DATE: 1994-12-01
PRIOR PRILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE FREENENEY
PRINCER PRILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SEQ ID NO 6819
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Pred. No. 10;
1; Mismatches 1; Indels
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Pred. No. 10;
1; Mismatches 1; Indels
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 4891
                                                                                  ; TYPE: PRT
; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-4891
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ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 6819, Application US/11045024
Publication No. US20050271676A1
GENERAL INFORMATION:
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; Sequence 5, Application US/10966483
; Publication No. US20050281783A1
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Southwood, Scott
Livingston, Brian
Chesnut, Robert
Baker, Denise Marie
Celis, Esteban
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ilarity 71.4%;
Conservative
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Best Local Similarity 71.4
Then 5, Conservative
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Grey, Howard M.
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Best Local Similarity
Matches 5; Conserv
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CURRENT APPLICATION VIMBER: 20/11/045,024
CURRENT FILING DATE: 2005-01-28
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        FILE KEFERENCE: 200.004000;
CURRENT PELLING DATE: 2005-01-28
PRIOR PILLING DATE: 2005-01-28
PRIOR PILLING DATE: 1999-10-05
PRIOR PILLING DATE: 1999-10-05
PRIOR PILLING DATE: 1999-00-05
PRIOR PILLING DATE: 1993-03-05
PRIOR PELLING DATE: 1993-06-04
PRIOR PELLING DATE: 1993-06-04
PRIOR PELLING DATE: 1993-06-04
PRIOR PILLING DATE: 1993-06-06
PRIOR PILLING DATE: 1993-06-06
PRIOR PILLING DATE: 1993-06-06
PRIOR PILLING DATE: 1993-10-29
PRIOR PILLING DATE: 1993-11-29
PRIOR PILLING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SEQ ID NOS: 14528
SEQ TYMARE: PRECENTION NUMBER: US 08/347,610
PRIOR PILLING DATE: 1994-12-01
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PRIOR PILING DATE: 1999-10-05
PRIOR PILING DATE: 1999-10-05
PRIOR PILING DATE: 1999-00-05
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR PILING DATE: 1999-06-04
PRIOR PILING DATE: 1993-06-06
PRIOR PILING DATE: 1993-10-06-06
PRIOR PILING DATE: 1993-11-29
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RIOR APPLICATION NUMBER: US 08/347,610
PRIOR FILING DATE: 1994-12-01
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Publication No. US20050271676A1
GENERAL INFORMATION:
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Celis, Esteban
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Southwood, Scott
Livingston, Brian
Chesnut, Robert
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Grey, Howard M.
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GVGSPQI 10
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| Sequence 42, Application US/10517784
| Sequence 42, Application US/10517784
| Sequence 42, Application No. US20060003315A1
| Sequence 42, Application No. US20060003315A1
| Sequence 42, Application No. US20060003315A1
| GENERAL INFORMATION:
| APPLICANT: GROSS, Gideon
| TITLE OF INVENTION: MEMBRANE-ANCHORED BETA-2 MICROGLOBULIN COVALENTLY LINKED TO MHC
| TITLE OF INVENTION: MEMBRANE-ANCHORED BETA-2 MICROGLOBULIN COVALENTLY LINKED TO MHC
| TITLE OF INVENTION: MEMBRANE-US/10/517, 784
| CURRENT APPLICATION NUMBER: US/10/517, 784
| PRIOR PLILING DATE: 2002-06-12
| PRIOR PRILING DATE: 2003-06-12
| PRIOR PRILING DATE: 2003-06-12
| NUMBER OF SEQ ID NOS: 64
| SOFTWARE: PATENTIN VERSION 3:1
| TENNICH OF SEQ ID NOS: 64
| SEQ ID NO 42
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Pred. No. 1.4e+05;
1; Mismatches 3; Indels
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APPLICANT: Chang, Chung Nan
APPLICANT: Chen, Pei-Jiun
APPLICANT: Chen, Pei-Jiun
APPLICANT: Huang, Chiu-Chen
TITLE OF INVENTION: ANTIBODIES
FILE REFRERICE: 13062-011001
CURRENT APPLICATION NUMBER: US/11/125,837
CURRENT FILING DATE: 2005-05-10
PRIOR PILING DATE: 2006-05-10
NUMBER OF SEQ ID NOS: 100
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 12
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence 12, Application US/11125837 Publication No. US20050266003A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47.1%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:

OTHER INFORMATION: Synthetic

US-10-517-784-42
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APPLICANT: Sette, Alessandro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 47.1
Best Local Similarity 50.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
CORGANISM: Mus musculus
US-11-125-837-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 MAGVGSPY 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 LLGPGRPY 8
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Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0, Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 9;
         GENERAL INFORMATION:
APPLICANT: Kinch, Michael S.
APPLICANT: Kinch, Michael S.
APPLICANT: Kinch, Michael S.
APPLICANT: Kinch, Michael S.
APPLICANT: Bruckheimer, Elizabeth
APPLICANT: Dubensky, Jr. Thomas W.
APPLICANT: Dubensky, Jr. Thomas W.
TITLE OF INVENTION: LISTERIA-BASED EphA2 VACCINES
FILE REFERENCE: 10271-146
CURRENT APPLICATION NUMBER: US 60/511,919
PRIOR APPLICATION NUMBER: US 60/511,919
PRIOR APPLICATION NUMBER: US 60/511,719
PRIOR APPLICATION NUMBER: US 60/511,719
PRIOR APPLICATION NUMBER: US 60/532,666
PRIOR FILING DATE: 2003-10-15
PRIOR PILING DATE: 2004-00-1
PRIOR FILING DATE: 2004-00-0
PRIOR FILING DATE: 2004-10-01
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE: 2004-10-01
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE: 2004-10-07
NUMBER OF SEQ ID NOS: 72
SEQ ID NOS: 72
SEQ ID NOS: 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 1.4e+05;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 7. Application US/10511273
; Suguence 7. Application US/20060034856A1
; GENERAL INFORMATION:
; APPLICANT: KOSMATOPOULOS, KOSTAS
; APPLICANT: ALVES, PEDRO
; TITLE OF INVENTION: EPHAZ ANTIGEN T EPITOPES
; TILE REPRENCE: 26044910SORPCT;
; CURRENT APPLICATION NUMBER: PCT/FR03/01280;
; PRIOR PILING DATE: 2003-04-23
; PRIOR APPLICATION NUMBER: PCT/FR03/01280;
; PRIOR APPLICATION NUMBER: PCT/FR03/01280;
; PRIOR FILING DATE: 2002-04-23
; PRIOR FILING DATE: 2002-04-23
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: Patentin version 3.3
; SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 26;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FRATURE:
, OTHER INFORMATION: Synthetic Peptide
US-10-511-273-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51.0%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . Query Match
Best Local Similarity 83...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-966-483-5
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1 VLAGVG 6
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US-10-511-273-7
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Gaps ö

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PRIOR FILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/159,339
PRIOR FILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
PRIOR FILING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 2950
                                   TLING DATE: 1993-08-06
PPLICATION NUMBER: US 08/159,184
APPLICATION NUMBER: US 08/103,396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sidney, John
Southwood, Scott
Livingston, Brian
Chesnut, Robert
Baker, Denise Marie
Celis, Esteban
Kubo, Ralph
Grey, Howard M.
Epimmune Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 80.0%;
Matches 4; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 GVGSP 8
                                                                                                             APPLICANT: Cneenur, Kobert
APPLICANT: Calis, Esteban
APPLICANT: Expimmune Inc.
ITILE OF INVENTION: Inducing Callular Responses to Human Immunodeficiency
ITILE OF INVENTION: Virue-1 Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0040007
CURRENT FILING DATE: 1999-10-05
PRIOR FILING DATE: 1999-00-05
PRIOR PLILOR DATE: 1999-00-05
PRIOR PPLICATION NUMBER: US 08/027,146
PRIOR PPLICATION NUMBER: US 08/103,396
PRIOR PPLICATION NUMBER: US 08/103,396
PRIOR PLING DATE: 1993-11-29
PRIOR PLING DATE: 1993-11-29
PRIOR PPLING DATE: 1993-11-29
PRIOR PPLING DATE: 1993-11-29
PRIOR PPLING DATE: 1993-11-29
PRIOR PPLING DATE: 1993-11-29
PRIOR PLING DATE: 1994-11-20
PRIOR PLING DATE: 1994-12-01
NUMBER: US 08/129,139
PRIOR PLING DATE: 1994-12-01
NUMBER OF SEQ ID NOS: 14528
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 2949
LENGTH: 8
LEN
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APPLICANT: Sidney John
APPLICANT: Sidney John
APPLICANT: Southwood, Scott
APPLICANT: Livinggoron, Brian
APPLICANT: Chesnut, Robert
APPLICANT: Cels, Esteban
APPLICANT: Cels, Esteban
APPLICANT: Cels, Esteban
APPLICANT: Cels, Ralph
APPLICANT: Muo, Ralph
APPLICANT: Dimmune Inc.
ITILE OF INVENTION: Inducing Cellular Responses to Human Immunodeficiency
ITILE OF INVENTION: VILUS-1 Using Peptide and Nucleic Acid Compositions
FILE REPERENCE: 2060.004007
CURRENT APPLICATION NUMBER: US 08/112,863
PRIOR APPLICATION NUMBER: US 08/122,146
PRIOR APPLICATION NUMBER: US 08/027,146
PRIOR APPLICATION NUMBER: US 08/073,205
PRIOR PILING DATE: 1993-06-04
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80.0%; Pred. No. 1.4e+05
tive 0; Mismatches
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; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2950, Application US/11045024 Publication No. US20050271676A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Sette, Alessandro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 80.0
Matches 4; Conservative
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APPLICANT: Grey, Howard M.
APPLICANT: Grey, Howard M.
APPLICANT: Grey, Howard M.
APPLICANT: Edimune Inc.
TITLE OF INVENTION: Utrus-1 Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Virus-1 Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: VIRUS-1 US/11/045,024
CURRENT APPLICATION NUMBER: US 09/412,863
PRIOR PELING DATE: 1999-10-05
PRIOR PELING DATE: 1993-00-05
PRIOR PELING DATE: 1993-00-04
PRIOR PELING DATE: 1993-06-04
PRIOR PELING DATE: 1993-06-04
PRIOR PELING DATE: 1993-11-29
PRIOR PELING DATE: 1993-11-29
PRIOR PELING DATE: 1993-11-29
PRIOR PELING DATE: 1994-01-01
PRIOR FILING DATE: 1994-11-29
PRIOR FILING DATE: 1994-11-29
PRIOR FILING DATE: 1994-11-29
PRIOR PELING DATE: 1994-11-29
PRIOR FILING DATE: 1994-11-29
PRIOR FILING DATE: 1994-11-29
PRIOR PELING DATE: 1994-11-20
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                                                                                                                                       Length 8;
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                                                                                                                                Score 23; DB 7; I
Pred. No. 1.4e+05;
0; Mismatches 1,
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 9135
; TYPE: PRT
; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-2950
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; ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-9135
                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-11-045-024-9135
; Sequence 9135, Application US/11045024
; Sequence No. US20050271676A1
; GENERAL INFORMATION:
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80.0%;
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Best Local Similarity
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CTREAT APPLICATION NUMBER: 02(11/045,024
CURRENT FILING DATE: 2005-01-28
CURRENT FILING DATE: 2005-01-28
CORRECT FILING DATE: 2005-01-28
   Gaps
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1; Indels
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0; Mismatches
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PRIOR FILING DATE: 1999-10-05
PRIOR PLING DATE: 1999-10-05
PRIOR PLING DATE: 1993-03-05
PRIOR PLING DATE: 1993-06-04
PRIOR PILING DATE: 1993-06-04
PRIOR PILING DATE: 1993-06-04
PRIOR PILING DATE: 1993-06-06
PRIOR PILING DATE: 1993-10-29
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1993-11-29
PRIOR PILING DATE: 1994-03-04
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CRGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-11-045-024-9136
                                                                                                                                                                                                            RESULT 15
US-11-045-024-9136
Sequence 9136, Application US/11045024
Publication No. US20050271676A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                            Southwood, Scott
Livingston, Brian
Chesnut, Robert
Baker, Denise Marie
Celis, Esteban
Kubo, Ralph
Grey, Howard M.
Epimmune Inc.
   4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4; Conservative
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Best Local Similarity
Matches 4; Conserv
                                                            4 GVGSP 8
                                                                                                                   2 ĠVĠGP 6
   Matches
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Search completed: April 11, 2006, 19:27:28 Job time : 25 secs

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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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- protein search, using sw model OM protein April 11, 2006, 19:18:59; Search time 38 Seconds (without alignments) 25.320 Million cell updates/sec US-09-277-064-12 51 1 VMAGVGSPYV 10 Title: Perfect score: Sequence: Run on:

283416 segs, 96216763 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 Searched:

Scoring table:

1102 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 10

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 80:* 1: pir1:* 2: pir2:* 3: pir3:* 4: pir4:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	\$ 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Describeron		neuropeptide calla	NADH2 dehydrogenas	sperm-activating p	collagen alpha 2(v	copper resistance	contraction-inhibi	T-cell receptor be	Ig heavy chain CRD	Ig heavy chain C r	sperm-activating p	sperm-activating p	spinal cord peptid	recep	T-cell receptor be	sperm-activating p		T-cell receptor be	sperm-activating p	sperm-activating p						sperm-activating p			
	ŗ	77	PH1591	E47393	T09512	F60588	565865	A41225	A27696	PT0627	PT0324	C39111	G60787	I60588	C23751	PT0623	PT0631	G60588	PT0230	PH0927	H60787	F60787	D60787	B60787	D60588	B60588	6058	160527	0	95	F60527
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de	Query		47.1	7.		35.3		33.3		33.3	33.3	ش	33.3	33.3		31.4	31.4		~	Н	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	ч	31.4	31.4
	3	acore	24	19	18	18	18	17	17	17	17	17	- 17	17	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	Result	2		7	m	4	'n	9	7	89	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	53

sperm-activating p sperm-activating p	RESULT 1 PH1591 IG H chain V-D-J region (wild-type clone 142) - mouse (fragment) Ig H chain V-D-J region (wild-type clone 142) - mouse (fragment) Ig H chain V-D-J region (wild-type clone 142) - mouse (fragment) C; Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999 C; Accession: PH1591 R; Levinson, D.A.; Campos-Torres, J.; Leder, P. A; Tievinson, D.A.; Campos-Torres, J.; Leder, P. A; Tievinson, D.A.; Campos-Torres, J.; Leder, P. A; Accession: PH1591 A; Accession: PH
C66527 G60527 G60527 B39572 B39572 C60788 C60788 C60589 D60589 D60589 A60589 A60589 A60589	ALIGNMENTS (wild-type clone 142) - mou (house mouse) uence_revision 02-Jun-1994 -Torres, J.; Leder, PTorres, J.; Leder, PCorrigation of transgene-in (cterization of transgene-in (s0; MUID:93301609; PMID:831 ARC:UPI000017C6B2
00000000000000000	typer incompage in the control of th
	(wild-type cl (house mouse) huence_revision -Torres, J.; 9, 1993 Ro; MUID:9330 ARC:UPIO00017
	region 1994 #seq 1994 #seq 1994 #seq 1994 #seq 1994 #seq 1994 #seq 1994 #seq 1994 Phils 1994 Phils
100 100 100 100 100 100 100 100 100 100	V-D-J Mus T Jun-1 1: PH1 1: 178 1: 178 2: numb 2: numb 2: numb 3: numb 3: numb 3: numb 4: 1-9
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	RESULT 1 PH1591 Ig H chain V-D-J region (wild-type clone 142) C;Species: Mus musculus (house mouse) C;Date: O2-Jun-1994 #sequence_revision 02-Jun C;Accession: PH1591 R;Levinson, D.A.; Campos-Torres, J.; Leder, P.J. Exp. Med. 178, 317-329, 1993 A;Reference number: PH1580; MUD:93301609; PM.A;Reference number: PH1580; MUD:93301609; PM.A;Residues: 1-9 < LEV.A A;Residues: 1-9 < LEV.A A;Cross-references: UNIPARC:UPI000017C6B2 A;Experimental source: bone marrow pre-B lymplC;Reywords: immunoglobulin

neuropeptide callatostatin 5 - bluebottle fly (Calliphora vomitoria)
C;Species: Calliphora vomitoria
C;Species: Calliphora vomitoria
C;Date: 16-Feb-1994 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: E47393
R;Duve, H·; Johnsen, A.H.; Scott, A.G.; Yu, C.G.; Yagi, K.J.; Tobe, S.S.; Thorpe, A. Proc. Natl. Acad. Sci. U.S.A. 90, 2455-2460, 1993
A;Title: Callatostatins: neuropeptides from the blowfly Calliphora vomitoria with seque ö Gaps ö h Similarity 100.0%; Pred. No. 2.8e+05; 4; Conservative 0; Mismatches 0; Indels A;Cross-references: UNIPROT:P41841; UNIPARC:UPI000002EAB5
A;Experimental source: whole files
A;Note: sequence extracted from NCBI backbone (NCBIP:128482) Query Match Best Local Similarity Matches 4; Conserval A;Status: preliminary A;Molecule type: protein A;Residues: 1-8 <DUV> 4 GSPY 7 6 GSPY 9 A,Accession: E47393 _ 임 ઠે

0; Gaps th 37.3%; Score 19; DB 2; Length 8; Similarity 75.0%; Pred. No. 2.8e+05; 3; Conservative 0; Mismatches 1; Indels 1; Indels Query Match Best Local Similarity Matches 3; Conserv

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R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Eference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0627
                                                                                                                                                                                                                                                                                           Cidate: 19-Jun-1992 #sequence_revision 19-Jun-1992 #text_change 24-Jun-1993 CiAccession: A41225 #sequence_revision 19-Jun-1992 #text_change 24-Jun-1993 CiAccession: A41225 Proc. Natl. Acad. Sci. U.S.A. 88, 8915-8919, 1991 A;Title: Copper resistance in Pseudomonas syringae mediated by periplasmic and outer A;Reference number: A41225; MUID:92020961; PMID:1924351
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R, Hirata, T.; Kubota, I.; Iwasawa, N.; Takabatake, I.; Ikeda, T.; Muneoka, Y.
Biochem. Biophys. Res. Commun. 152, 1376-1382, 1988
A; Title: Structures and actions of Mytilus inhibitory peptides.
A; Reference number: A90142; MUID:88240357; PMID:3377776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .Date: 30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change 09-Jul-2004
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C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
Gaps
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33.3%; Score 17; DB 2; L.
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0;
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2.8e+05;
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33.3%; Score 17; DB
Best Local Similarity 100.0%; Pred. No. 2.6
Matches 3; Conservative 0; Mismatches
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contraction-inhibiting peptide I - blue mussel C; Species: Mytilus edulis (blue mussel)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Status: preliminary
A;Molecule type: proein
A;Redidues: 1-5 <CHA>
A;Cross-references: UNIPARC:UPI000017A9B5
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                                                                                                                                                                                                                                                                         Species: Pseudomonas syringae pv.
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  3; Conservative
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A; Residues: 1-8 < FEE>
                                                      AGVGS 7
                                                                                                        4 SGLGS 8
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  Matches
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R; Yoshino, K.I.; Kajiura, H.; Nomura, K.; Takao, T.; Shimonishi, Y.; Kurita, M.; Yamagud R; Yoshino, K.I.; Kajiura, H.; Nomura, K.; Takao, T.; Shimonishi, Y.; Kurita, M.; Yamagud A; Yitche: A halogenated amino acid-containing sperm activating peptide and its related peotus nudus, Echinometra mathaei and Heterocentrotus mammillatus.
A; Reference number: A60527
                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Gene: nad5.
A;Genome: mitochondrion
C;Keywords: mitochondrion; NAD; oxidative phosphorylation; oxidoreductase; respiratory
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C;Species: Bos primigenius taurus (cattle)
C;Species: Bos primigenius taurus (cattle)
C;Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 29-Aug-1997
C;Accession: S65865
R;Niyibizi, C.; Eyre, D.R.
Bur. J. Blochem. 224, 943-950, 1994
A;Title: Structural characteristics of cross-linking sites in type V collagen of bone.
A;Reference number: S48210; MUID:95010086; PMID:7925418
                                                                                   dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 5 - rape mitochondrion (fragment)
                                                                                                                                                                                                                                                                                                                                                                                       A,Cross-references: UNIPARC:UP1000011E90B; EMBL:U10423; NID:g1800190; PID:g1800192
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                                                                                                          Species: mitochondrion Brassica napus (rape)
| Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 03-Jun-2002
| Accession: T09512
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 7;
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Pred. No. 2.8e+05;
2; Mismatches 1;
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Pred. No. 2.8e+05;
                                                                                                                                                                                                                  submitted to the EMBL Data Library, June 1994
A;Reference number: Z16706
A;Accession: T09512
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
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N,Alternate names: speract homolog
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3; Conservative
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A;Residues: 1-9 <NIY>
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A, Molecule type: protein
A, Residues: 1-8 < YOS>
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Best Local Similarity
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Best Local Similarity
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2 MMIGLG 7
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C;Accession: 160588
R;Yoshino, K.I.; Kajiura, H.; Nomura, K.; Takao, T.; Shimonishi, Y.; Kurita, M.; Yamagu Ccomp. Biochem. Physiol. B 94, 739-751, 1989
A;Title: A halogenated amino acid-containing sperm activating peptide and its related g otts nudus, Echinometra mathaei and Heterocentrotus mammillatus.
A;Reference number: A60527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sperm-activating peptide (Glu-3,Met-4, Gly-5, Thr-7 SAP-I) - slate-pencil urchin (Heter
C,Species: Heterocentrotus mamillatus
C,Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 16-Aug-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            spinal cord peptide SCP-6 - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 28-Sep-1987 #sequence_revision 28-Sep-1987 #text_change 16-Aug-2004
C;Accession: C23751
R;Hsi, K.L.; Chen, R.L.; Chen, Z.G.; Zhang, H.L.; Lu, Y.A.; Guo, S.Y.; Wu, S.X.; Tsou, Arch. Blochem. Biophys. 240, 178-183, 1985
A;Reference number: A23751; MUID:85250425; PMID:4015098
                          A,Accession: G60787
A;Molecule type: protein
A;Molecule type: protein
A;Molecule type: protein
A;Molecule type: protein
A;Rosaidues: 10 < < CCC
A;Cross-references: UNIPROT:Q7M4D8; UNIPARC:UPI000017A4D6
C;Comment: This oligopeptide from egg jelly is one of several from this species, all at shows some, but not absolute, species restriction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T-cell receptor beta chain V-D-J region (111-1AB) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Dectes: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0623
R;Peeney, A.J.
                                                                                                                                                                                                               Length 10;
                                                                                                                                                                                                                                                               0; Indels
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Pred. No. 2.8e+05;
0; Mismatches 1; Indels
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A;Residues: 1-10 <YOS>
A;Cross-references: UNIPROT:Q7M4C0; UNIPARC:UP1000017A4EB
  A; Reference number: A60787; MUID:88242184; PMID:3378407
                                                                                                                                                                                                         33.3%; Score 17; DB 2; 175.0%; Pred. No. 4.9e+03; ive 1; Mismatches 0
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Pred. No. 4.9e+03;
0; Mismatches 2,
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Best Local Similarity 75.0%;
Matches 3; Conservative
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A. Molecule type: protein
A. Residues: 1-5 <HSI>
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7 SGVG 10
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Proc. Natl. Acad. Sci. U.S.A. 88, 1746-1750, 1991
Proc. Natl. Acad. Sci. U.S.A. 88, 1746-1750, 1991
A;Title: A serum heterodimer from hagfish (Eptarretus stoutii) exhibits structural simil A;Reference number: A39111; MUID:91156684; PMID:2000382
A;Accession: C39111
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Comp. Biochem. Physiol. B 89, 687-693, 1988
A;Title: Some more speract derivatives associated with eggs of sea urchins, Pseudocentrd
                                                                                                                                                                                                                                                                                                                                                        Ig heavy chain CRD3 region (clone J2-106C) - human (fragment)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Accession: Pr0324
C;Accession: Pr0324
R;Yamada, M; Wasserman, R; Reichard, B.A; Shane, S; Caton, A.J; Rovera, G.
A; Yamada, M; Multi at Inization of specific immunoglobulin heavy chain diversity and A;Reference number: Pr0222; MUID:91108337; PMID:1899102
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C,Species: Anthocidaris crassispina
C,Date: 03-Jun-1993 #sequence_revision 03-Jun-1993 #text_change 16-Aug-2004
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C;Species: Eptatretus stouti (Pacific hagfish)
C;Date: 18-Oct-1991 #sequence_revision 18-Oct-1991 #text_change 16-Aug-1996
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3; Indels
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Pred. No. 4.9e+03;
1; Mismatches 2; Indels
                                                                                                                           0; Indels
                                                                           Length 8;
A; Experimental source: newborn thymus, strain BALB/c C; Keywords: T-cell receptor
                                                                        Score 17; DB 2; I
Pred. No. 2.8e+05;
1; Mismatches 0;
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A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin
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C;Keywords: heterotetramer; immunoglobulin
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A; Residues: 1-10 <VAR>
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J. Exp. Med. 174, 115-124, 1991

A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions. A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0623
A;Accession: PT0623
A;Accession: PT0624
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Cross-references: UNIPARC:UP1000017C7CB
A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor
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Best Local Similarity 75.0
Matches 3; Conservative
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R,Feeney, A.J. 7. Exp. Med. 174, 115-124, 1991 A.Title: Junctional sequences of fetal T cell receptor beta chains have few N regions. A,Reference number: PT0509, MUID:91277601; PMID:1711558

T-cell receptor beta chain V-D-J region (111-11) - mouse (fragment) C;Species: Mus musculus (house mouse) C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997 C;Accession: PT0631

3 AGVG 6 AGTG 7

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Gaps

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1; Indels

Query Match
31.4%; Score 16; DB 2; Length 8;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels

Search completed: April 11, 2006, 19:23:18 Job time : 39 secs

5 AGTG 8

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A;Accession: PT0631
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-8 <FEE>
A;Cross-references: UNIDARC:UDI000017C7D4
A;Experimental source: newborn thymus, strain BALB/c
C;Keyworde: T-cell receptor

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    -!- FUNCTION: May act as a neurotransmitter or neuromodulator.

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                                                                               April 11, 2006, 19:15:49; Search time 229 Seconds (without alignments) 30.809 Million cell updates/sec
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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
      Callacostatin-5 (Met-callatostatin-1) ([Hyp3]Met-callatostatin).
Calliphora vomitoria (Blue blowfly).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
Calliphoridae; Calliphora.
                                                                                                                                                                                                                                                                                                                                                                                                                 Duve H., Johnsen A.H., Scott A.G., East P., Thorpe A.;
Duve H., Johnsen A.H., Scott A.G., East P., Thorpe A.;
[Hyp3]Met-callatostatin. Identification and biological properties of a novel neuropeptide from the blowfly Calliphora vomitoria.";
J. Biol. Chem. 269:21059-21066(1994)
J. Biol. Chem. 269:21059-21066(1994)
J. Biol. Chem. 269:21059-21066(1994)
J. Biol. Chem. Any act as a neurotransmitter or neuromodulator and play a role in the integration of information within the brain. May be involved in the control of visceral muscles due to its ability to behave as potent inhibitors of peristalic movements. May also fulfill a neurohomonal role on muscles of the gut and heart.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
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                                                                                                                                                                                                                                                              Callatostatins: neuropeptides from the blowfly Calliphora vomitoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -i- TISSUE SPECIFICITY: Neurons within brain and abdominal ganglion.
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Amidation; Direct protein sequencing; Hydroxylation; Neuropeptide.
Hydroxyproline (partial).
                                                                                                                                                                                                                    Duve H., Johnsen A.H., Scott A.G., Yu C.G., Yagi K.J., Tobe
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                                                                                                                                                                                                                                                                                       with sequence homology to cockroach allatostatins.";
Proc. Natl. Acad. Sci. U.S.A. 90:2456-2460(1993).
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Last annotation update)
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  35-JUL-2004 (Rel. 44, Last annotation update)
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                                                                                                                                                                                               MEDLINE=93211980; PubMed=8460157;
                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=94342269; PubMed=8063725;
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05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TremPlel. 27, 05-JUL-2004)
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                                                          This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
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                                                                                                                                                                                               Amidation; Direct protein sequencing; Multigene family; Neuropeptide.
                                                                                                                                                                                                                                                                                                                                    Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Isolation and identification of multiple neuropeptides of the allatostatin superfamily in the shore crab Carcinus maenas."; Eur. J. Biochem. 250:727-734(1997).

-I. FUNCTION: May act as a neurotransmitter or neuromodulator.
-!- SUBCELIDIAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca; Bualaleostraca; Bucarida; Decapoda; Pleocyemata; Brachyura; Bubrachyura; Portunoidea; Portunidae; Carcinus.
                                                                                                                                                                                                                                                                                   39.2%; Score 20; DB 1; Length 8; 75.0%; Pred. No. 2.2e+06; tive 0; Mismatches 1; Indels
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    -!- SIMILARITY: Belongs to the allatostatin family.

                                                                                                                                                                                                                      8 8 Leucine amide.
8 AA; 813 MW; 7C286B45AB476878 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Rel. 47, Last annotation update)
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Last sequence update)
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(Rel. 32, Last sequence update)
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SUBCELLULAR LOCATION:
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Best Local Similarity
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30-MAY-2000
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2 NPYV 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MUCLEOTIDE SEQUENCE.
MEDLINE=93076813; PubMed=1332868;
Peers B., Nalda A.M., Monger P., Voz M.L., Belayew A., Martial J.A.;
Peers B., Nalda A.M., Monger P., Voz M.L., Belayew A., Martial J.A.;
Binding of a 100-kDa udiquitous factor to the human prolactin
promoter 1s required for its basal and hormone-regulated activity.";
Eur. J. Blochem. 210:53-58(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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MEDLINE-84182507; PubMed-6325171;
Truong A.T., Duez C., Belayew A., Renard A., Pictet R.L., Bell G.I.,
                                                                                                                                                                                                                                                                    Gaps
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Viruses; dsDNA viruses, no RNA stage; Caudovirales; Siphoviridae.
VCBI_TaxID=63118;
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                                                                                                                                                                                             h 37.3%; Score 19; DB 2; Length 9; Similarity 57.1%; Pred. No. 2.2e+06; 4; Conservative 1; Mismatches 2; Indels
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Pred. No. 2.2e+06;
1; Mismatches 0; Indels
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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      organization in two genes.";
J. Biol. Chem. 268:13010-13010(1993).
Bibl; S62577; AAB27101.1; -; Genomic_DNA.
NON TER
SEQÜENCE 9 AA; 995 MW; 8C8EA5B877376DDA CRC64;
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EMBL; X00368; CAA25108.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QOUQWO HUMAN PRELIMINARY;
QOUQWO;
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MEDLINE=22967687; PubMed=12949142; DOI=10.1093/molbev/msg206;
Inoue J.G., Miya M., Tsukamoto K., Nishida M.;
Evolution of the deep-sea gulper eel mitochondrial genomes: largescale gene rearrangements originated within the eels.";
Mol. Biol. Evol. 20:1917-1924(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Actinopterygii, Neopterygii, Teleostei, Anguilliformes,
Eurypharyngidae, Eurypharynx.
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Actinopterygii; Neopterygii; Teleostei; Anguilliformes;
Eurypharyngidae; Eurypharynx.
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                                                37.3%; Score 19; DB 2; Length 10;
80.0%; Pred. No. 1.7e+04;
tive 1; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Inoue J., Inoue J., Miya M., Tsukamoto K., Nishida M.; Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases. EMBL, AB046485; BAB87156.1; -; Genomic_DNA. EMBL, AB046489; BAB87156.1; -; Genomic_DNA. EMBL, AB046481; BAB87148.1; -; Genomic_DNA. GO,; GO:0005739; C:mitochondrion; IEA.
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10 AA; 1293 MW; 356FAE29C682DB47 CRC64;
D38BBCC44732C87D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
NADH dehydrogenase subunit 2 (Fragment).
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Last annotation update)
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Pred. No. 1.7e+04;
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NADH dehydrogenase subunit 2·(Fragment)
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05-JUL-2004 (TEMBLrel. 27, Last seq
05-JUL-2004 (TEMBLrel. 27, Last ann
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10 AA; 997 MW;
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Q76MK9;
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Q76MMS;
                                                                            Local Similarity 80.0
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NCBI_TaxID=6233;
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P82660;
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"Role of the open reading frames of Rous sarcoma virus leader RNA in translation and genome packaging.";
EMBO J. 11:3747-3757(1992).
EMBL, X67587; CA474862.1; -; Genomic RNA.
SEQUENCE 7 AA, 672 MW; 776045A7687D6F0 CRC64;
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MEDLINE=22967687; PubMed=12949142; DOI=10.1093/molbev/msg206; Inoue J.G., Miya M., Tsukamoto K., Nishida M.; Favolution of the deep-sea gulper eel mitochondrial genomes: largescale gene rearrangements originated within the eels."; Mol. Biol. Evol. 20:1917-1924 (2003).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pully CARMA STANDARD; PRT; 8 AA.
P81809; P81804; P81810;
30-MAY-2000 (Rel. 39, Last sequence update)
13-SEP-2005 (Rel. 39, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
Carcinustatin-7 (Contains: Carcinustatin-6; Carcinustatin-7 Carcinus maenas (Common shore crab) (Green crab).
Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca; Eumalacostraca; Bucarida; Decapoda; Pleocyemata; Brachyura; Eubrachyura; Portunoidea; Carcinus.
                                                                                                                                                                                                                                                                                                                  Score 19; DB 2; Length 10;
Pred. No. 1.7e+04;
1; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rous sarcoma virus.
Viruses; Retroid viruses; Retroviridae; Alpharetrovirus.
NCBI_TaxID=11886;
                                                                                                                                             Inoue J., Inoue J., Miya M., Tsukamoto K., Nishida M.; Submitted (JUL-2000) to the KMBL/GenBank/DDBJ databases EMBL; AB046477; BAB87140.1; -; Genomic_DNA. GG, GO:0005739; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                        NON TER 10 10 SEQUENCE 10 AA; 1261 MW; 357BFE29C682DB47 CRC64;
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MEDLINE=93010967; PubMed=1327749;
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75.08;
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01-NOV-1996 (TrEMBLrel. 01,
01-MAR-2003 (TrEMBLrel. 23,
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007624;
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tes 3; Conservative
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2 NPYV 5
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007624 9RE
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    STWREETERS
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This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bloinformatics and the EMBL outstation the Buropean Bloinformatics Institute. There are no restrictions on its
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Maule A.G.; "Instructerization and pharmacology of RWRFamide-related "Isolation, characterization free-living nematode, Panagrellus redivivus."; Submitted (JUL-2000) to Swiss-Prot.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROTEIN SEQUENCE, FUNCTION, AND AMIDATION.
Moffett C.L., Marks N.J., Halton D.W., Thomson D.P., Geary T.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- FUNCTION: Myoactive.
-!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
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"Isolation and identification of multiple neuropeptides of the allatostatin superfamily in the shore crab Carcinus maenas."; Eur. J. Blochem. 250:727-734(1997).

-I- FUNCTION: May ac a neurotransmitter or neuromodulator.

-I- SUBCEDIALAR LOCATION: Secreted.

-I- SIMILARITY: Belongs to the allatostatin family.
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Pred. No. 2.7e+04;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 18; DB 1; Length 8; Pred. No. 2.2e+06; 0; Mismatches 0; Indela
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Panagrolaimoidea, Panagrolaimidae, Panagrellus
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MOD RES 10 10 Phenylalanine amide.

SEQUENCE 10 AA; 1132 MW; CB13E4C9D776C76D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-OCT-2001 (Rel. 40, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
FWRFamide-like neuropeptide PF6 (NGAPQPFVRF-amide).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8 Leucine amide.
8 AA; 825 MW; 922879CDCB4775BD CRC64;
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16-OCT-2001 (Rel. 40, Last seqn
05-JUL-2004 (Rel. 44, Last anno
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Similarity 42.9%;
3; Conservative :
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Actinopterygii, Neopterygii, Teleostei, Euteleostei, Neoteleostei,
Acanthomorpha, Acanthopterygii, Percomorpha, Perciformes, Labroidei,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mabuchi K., Miya M., Satoh T.P., Westneat M.W., Nishida M.; "Gene Rearrangements and Evolution of tRNA Pseudogenes in the Mitochondrial Genome of the Parrotfishes (Teleostei: Perciformes:
                                                                                                                                                                                                                                                                                                                Neurospora crassa.
Eukaryota; Pungi; Ascomycota; Pezizomycotina; Sordariomyceťes;
Sordariomycetidae; Sordariales; Sordariaceae; Neurospora.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAUTION: The sequence shown here is derived from an EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 18; DB 2; Length 10;
Pred. No. 2.7e+04;
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SEQUENCE 10 AA; 1284 MW; D6D34CB72DC40059 CRC64;
                                                                                                                                       Created)
Last sequence update)
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EMBL, AB117556; BAD51879.1; -; Genomic_DNA.
GO, GO.0005739; C:mitochondrion; IEA.
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                                                              Q7SA62_NEUCR PRELIMINARY;
Q7SA62;
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NUCLEOTIDE SEQUENCE.
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Q60HP3_9LABR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
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Biochem. Biophys. Res. Commun. 152:1376-1382(1988).
--- FUNCTION: Inhibitory action on contractions in several molluscan
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Mytiloidea, Mytilidae, Mytilinae, Mytilus.
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2; Mismatches 3; Indels
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6 Valine amide.
637 MW; 72C9C68775B81000 CRC64;
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Pred. No. 2.2e+06;
0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                  01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
01-FEB-2005 (Rel. 46, Last annotation update)
Contraction-inhibiting peptide I (MIP I).
Mytilus edulis (Blue mussel).
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MEDLINE=88240357; PubMed=3377776;
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Conservative 0;
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Sequence 95,
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Sequence 8,
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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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.: /cgn2_6/ptodata/1/iaa/5_COMB.pep:*
?: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*
.: /cgn2_6/ptodata/1/iaa/f_COMB.pep:*
.: /cgn2_6/ptodata/1/iaa/PCTUS COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
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US-08-466-48B-29
US-08-466-68B-29
US-09-541-982-95
US-09-545-638-16
US-09-554-53-29
US-09-979-33-29
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US-08-448-438-69
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Maximum Match 100%
Listing first 45 summaries

    protein search, using sw model

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Gapop 10.0 , Gapext 0.5
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Match Length
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Sequence 29, Application US/08467083
Patent No. 5726023
GENERAL INFORMATION:
APPLICANT: Cheever, Martin A.
APPLICANT: Disis, Mary L.
TITLE OF INVENTION: FOR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE TITLE OF INVENTION: HER-2/NEU ONCOGENE IS ASSOCIATED NUMBER OF SEQUENCES: 68
CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed and Berry
STREET: 6300 Columbia Center, 701 Fifth Avenue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFFWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/467,083
FILING DATE: 06-JUN-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/414,417
FILING DATE: 06-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Sharkey, Richard G.
                                             US-09-949-016-10903
                                                                                                                                                                                                                                           -10-318-675-81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 32,629
REFERENCE, DOCKET NUMBER: 92,629
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
TELEFAX: 3723936 SEEDANBERRY
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Seattle
STATE: Washington
COUNTRY: US
ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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US-08-467-083-29
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GENERAL INFORMATION:

APPLICANT: Cheever, Martin A.

APPLICANT: Disis, Mary L.

TITLE OF INVENTION: IMMUNE REACTIVITY TO HER-2/neu PROTEIN

TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED

NUMBER OF SEQUENCES: 69

CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATE:
APPLICATION NUMBER: US/08/468,545B
FILING DATE: 06-UJW-1995
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 32,629
REFERENCE/DOCKET NUMBER: 920010.448C5
TELECOMMUNICATION INFORMATION:
MEDIUM TOWNEY CALLON INFORMATION:
MEDIUM TOWNEY CALLON INFORMATION:
MEDIUM TOWNEY CALLON INFORMATION:
MEDIUM TOWNEY CALLON INFORMATION:
                COMPUTER READBLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
GURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/486,348A
FILING DATE: 07-JUN-1995
CLASSIPICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Seed and Berry LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 51; DB 1; Best Local Similarity 100.0%; Pred. No. 0.0097; Matches 10; Conservative 0; Mismatches 0
                                                                                                                                                                                                                                                           ATTORNEY AGENT INFORMATION:
NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 32,629
REFERENCE/DOCKET NUMBER: 920010.448C6
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
TELEPAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-468-545B-29
; Sequence 29, Application US/08468545B
; Patent No. 5876712
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STATE: Washington
COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
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US-08-486-348A-29
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                                                                                                                                                                                                                                                           APPLICANT: Cheever, Martin A.
APPLICANT: Cheever, Martin A.
APPLICANT: Cheever, Mary L.
TITLE OF INVENTION: IMMUNE REACTIVITY TO HER-2/neu PROTEIN
TITLE OF INVENTION: FOR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE
TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED
NUMBER OF SEQUENCES: 69
CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed and Berry LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
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APPLICANT: Cheever, Martin A.
APPLICANT: Disis, Mary L.
TITLE OF INVENTION: IMMUNE REACTIVITY TO HER-2/neu PROTEIN
TITLE OF INVENTION: FOR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE
TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED
NUMBER OF SEQUENCES: 69
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MEDIUM TYPE: Floppy disk
COMPUTER: Eloppy disk
COMPUTER: Eloppy disk
COMPUTER: Patent B PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/414,417B
FILING DATE: 31-MAR-1995
CLASSIFICATION: 42-4
ATTORNEY/AGENT INFORMATION:
NAME: Sharkey, Richard G.
REFERENCE/POCKET NUMBER: 32,629
REFERENCE/POCKET NUMBER: 32,629
TELECOMMUNICATION INFORMATION:
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ADDRESSEE: Seed and Berry LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
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                                                                                                                                                        US-08-414-417B-29; Sequence 29, Application US/08414417B; Sequence 29, Application US/08414417B; Patent No. 5801005; GENERAL INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-08-486-348A-29
; Sequence 29, Application US/08486348A
; Patent No. 5846538
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TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 100.
Matches 10; Conservative
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                                                VMAGVGSPYV 10
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STATE: Washington
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US-08-414-417B-29
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ZIP: 98104-7092
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Gaps
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         OF INVENTION: CYTOTOXIC LYMPHOCYTES, AND USES THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: HLA Class I A2 Tumor Associated Antigen
TITLE OF INVENTION: Peptides and Vaccine Compositions
FILE REFERENCE: 016623-015710018
CURRENT APPLICATION NUMBER: US/09/543,608A
CURRENT FILING DATE: 2002-04-05
NUMBER OF SEQ ID NOS: 52
SOFTWARE: FastSEQ for Windows Version 3.0
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Pred. No. 0.0097;
                                                                 CURRENT FILING DATE: 1999-09-20
EARLIER APPLICATION NUMBER: PCT/US98/01592
EARLIER FILING DATE: 1998-01-29
EARLIER APPLICATION NUMBER: 60/037,781
EARLIER FILING DATE: 1997-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 51; 100.0%; Pred. No. (
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Patent No. 6664370
GENERAL INFORMATION:
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US-09-543-608A-16
                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.0%;
Matches 10; Conservative 0
                                                                                                                                                                                                                                                                                  TYPE: PRT ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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Southwood, Scott
Celis, Esteban
Keogh, Elissa A.
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SOFTWARE: Patentin Ver: 2.0
SEQ ID NO 95
LENGTH: 10
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Best Local Similarity 100.
Matches 10; Conservative
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                                                                                                                                                                                                                                                                                                                         Sequence 29, Application US/08466680B
Patent NO. 6075122
GENERAL INFORMATION:
APPLICANT: Cheever, Martin A.
APPLICANT: Disis, Mary L.
TITLE OF INVENTION: IMMUNE REACTIVITY TO HER-2/neu PROTEIN
TITLE OF INVENTION: FOR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE
TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED
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APPLICANT: HUNT, Donald F.
APPLICANT: BUGELHARD, Victor H.
APPLICANT: KITTLESEN, David
TITLE OF INVENTION: CYSTEINE-DEPLETED PEPTIDES RECOGNIZED BY A3-RESTRICTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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                                                                        100.0%; Score 51; DB 1; Length 10; 100.0%; Pred. No. 0.0097;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/466,680B
FILING DATE: 06-JUN-1995
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3: Seed and Berry LLP
6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 95, Application US/09341982
Patent No. 6558671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 32,628
REFERENCE/DOCKET NUMBER: 920
RELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (206) 622-4900
ITELEPAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                 Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                 1 VMAGVGSPYV 10
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STATE: Washington
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US-08-466-680B-29
; TOPOLOGY: linear
US-08-468-545B-29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                        US-08-466-680B-29
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Gaps
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OTHER INFORMATION: Description of Artificial Sequence: Amino acid
OTHER INFORMATION: resolved product using the construct shown in FIG
OTHER INFORMATION: 5.
US-09-979-338A-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FENERAL INTORMATION:
APPLICANT: Heffron et al.
TITLE OF INVENTATION: Tagged Epitope Protein Transposable Element
TITLE OF INVENTION: Tagged Epitope Protein Transposable Element
FILE REPRENCE: 61589
CURRENT PILING DATE: 2001-11-21
PRIOR PILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/136,210
PRIOR PILING DATE: 1999-05-26
NUMBER OF SEQ ID NOS: 33
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 27
LENGTH: 82
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APPLICANT: Heffron et al.
TITLE OF INVENTION: Tagged Epitope Protein Transposable Element
FILE REFERENCE: 61589
CURRENT APPLICATION NUMBER: US/09/979,338A
CURRENT APPLICATION NUMBER: US/09/979,338A
CURRENT APPLICATION NUMBER: PCT/US00/14687
PRIOR APPLICATION NUMBER: 60/136,210
PRIOR APPLICATION NUMBER: 60/136,210
PRIOR APPLICATION NUMBER: 60/136,210
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PATENTIN VOT: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 51; DB 2; Length 82; 100.0%; Pred. No. 0.077; ive 0; Mismatches 0; Indels
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100.0%; Score 51;
Best Local Similarity 100.0%; Pred. No. (
Matches 10; Conservative 0; Mismatche
                        433.1PC
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  33,950
                 REFERENCE/DOCKET NUMBER: 4:
TELECOMMUNICATION INFORMATION
TELEPHONE: (619) 554-2937
                                                               TELEPHONE: (619) 554-2937
TELEFAX: (619) 554-6312
INFORMATION FOR SEQ ID NO: 12: SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                MOLECULE TYPE: peptide
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                                                                                                                                                                                    TYPE: amino acid
TOPOLOGY: linear
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US-09-979-338A-27
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FOR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE HER-2/neu ONCOGENE IS ASSOCIATED
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100.0%; Score 51; DB 2; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0097;
Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 12, Application PC/TUS9516415
GENERAL INFORMATION:
APPLICANT: The Scripps Research Institute
TITLE OF INVENTION: IN VIVO ACTIVATION OF TUMOR-SPECIFIC
TITLE OF INVENTION: CYTOTOXIC T CELLS
NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
ADDRESSEE: The Scripps Research Institute
                                                                                                                                                       STATE: Washington
COUNTRY: US
ZIP: 981.04-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                            ADDRESSEE: Seed and Berry LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 32,629
REFERENCE/DOCKET NUMBER: 920010.448C9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/354,533
FILING DATE: 15-JUL-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 29:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US95/16415
FILING DATE: 13-DEC-1995
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/355,558
FILING DATE: 14-DEC-1994
ATTORNEY AGENT INFORMATION:
NAME: Logan, Abril C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 92037
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: 29:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                NUMBER OF SEQUENCES: 69
                                                                                                                                           CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 VMAGVGSPYV 10
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CITY: Seattle
STATE: Washington
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CITY: Seattle
STATE: Washington
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US-08-414-417B-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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Matches
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                                                                                FEATURE:

OTHER INFORMATION: Description of Artificial Sequence: Amino acid
OTHER INFORMATION: resolved product using the construct shown in f
OTHER INFORMATION: FIG 9.
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Patent No. 5958784
GENERAL INFORMATION:
APPLICANT: Benner, Steven A.
TITLE OF INVENTION: Predicting Folded Structures of Proteins NUMBER OF SEQUENCES: 114
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                           Query Match
100.0%; Score 51; DB 2; Length 92;
Best Local Similarity 100.0%; Pred. No. 0.086;
Matches 10; Conservative 0; Mismatches 0; Indels
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ZIP: (note: this is an international post code)
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch diskette, 1.4 Mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
100.0%; Score 51, DB 1;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 10, Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : (International) 41 1 632 2830 (International) 41 1 262 2437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: human
FEATURE: Protein kinase; Table 8 Column 75
FUBLICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: Apple MacIntosh OPERATING SYSTEM: MacIntosh 7.0 SOFTWARE: Microsoft Word CURRENT APPLICATION DATA: APPLICATION NUMBER: US/07/857,224B FILING DATE: 03/25/92 CLASSIPICATION 1436 PRIOR APPLICATION DATA: none TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS: Hanks, S. K.
AUTHORS: Quinn, A. M.
AUTHORS: Hunter, T.
TITLE: The protein kinase family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E: Steven A. Benner
Hadlaubstrasse 151
                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: none
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
DESCRIPTION: protein
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                1 VMAGVGSPYV 10
                                                                                                                                                                                                                                                                                                                                          47 VMAGVGSPYV 56
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US-07-857-224B-66
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SEQ ID NO 31
LENGTH: 92
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1 VARACGREPY 05

1 Sequence 5: VARACGREPY 10

1 Sequence 5: Application UB/0811417B

1 Sequence 5: Application UB/0811417B

1 PREMILED.

1 Sequence 5: Application UB/0811417B

1 PRINTED OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

1 TILLS OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

1 TILLS OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

1 TILLS OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

1 TILLS OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

1 TILLS OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

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1 TILLS OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

1 TILLS OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

1 TILLS OF INVERTION: INSTANCE MACANITY TO HER-2/new PROTEIN

1 TILLS OF INVERTION: INSTANCE MACANITY MA
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Patent No. 5876712
GENERAL INFORMATION:
APPLICANT: Cheever, Mary L.
TITLE OF INVENTION: IMMUNE REACTIVITY TO HER-2/neu PROTEIN
TITLE OF INVENTION: FOR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE
TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED
NUMBER OF SEQUENCES: 69
CORRESPONDENCE ADDRESS:
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MEDIUW TYPE: F10-PDY disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPANING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIN Release #1.0, Version #1.25
SOFTWARE: PatentIN DATA:
APPLICATION NUMBER: US/08/468,545B
FILING DATE: 06-UN-1995
TLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Sharkey, Richard G.
REFERENCE/DOCKET NUMBER: 920010.448C5
REFERENCE/DOCKET NUMBER: 920010.448C5
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION SEQ ID NO: 69:
SEQUENCE CHARACTERISTICS:
TENERAL (206) 682-6031
INFORMATION FOR SEQ ID NO: 69:
SEQUENCE CHARACTERISTICS:
TENERAL SEQ amino acids
COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPOTER: IBM PC compatible

COMPOTER: IBM PC compatible

COMPOTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOCTAME: PEDLICATION DATA:

APPLICATION NUMBER: US/08/486,348A

FILING DATE: 07-JUN-1995

CLASSIPICATION: 424

ATTORNEY/AGENT INFORMATION:

NAME: Sharkey, Richard G.

REGISTRATION NUMBER: 920010.448C6

TELECOMMONICATION INFORMATION:

TELEPHONE: (206) 622-6031

INFORMATION FOR SEQ ID NO: 69:

SEQUENCE CHARACTERISTICS:

LENGTH: 580 amino acids

TYPE: amino acid
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6300 Columbia Center, 701 Fifth Avenue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
TOPOLOGY: linear
US-08-486-348A-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: US
ZIP: 98104-7092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: Werting
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US-08-468-545B-69
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US-08-812-393A-49
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Sequence 12, Appl
Sequence 16, Appl
Sequence 620, App
Sequence 786, App
Sequence 4335, Ap
Sequence 4435, Ap
Sequence 620, Appl
Sequence 16, Appl
Sequence 16, Appl
Sequence 29, Appl
Sequence 29, Appl
Sequence 2352, Ap
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Sequence 838, App
Sequence 2386, Ap
Sequence 838, App
Sequence 2386, Ap
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                                                                                                              April 11, 2006, 19:35:40; Search time 166 Seconds (without alignments) 25.170 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published Applications AA Main:*

1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US108_PUBCOMB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US108_PUBCOMB.pep:*

6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*
           GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                 1867569 segs, 417829326 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                               - protein search, using sw model
                                                                                                                                                                                                                                                          BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 20000000
                                                                                                                                                                                       US-09-277-064-12
                                                                                                                                                                                                    51
1 VMAGVGSPYV 10
                                                                                                                                                                                    Title:
Perfect score:
                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
                                                                                OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                          Sequence:
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                                                                                                                   Run on:
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Sequence 49, Application US/08812393A
Sublication No. US20010007152A1
GENERAL INFORMATION:
APPLICANT: SHERMAN, Linda A.
APPLICANT: LUSTCANTEN, JOSEPH
TITLE OF INVENTION: RECOMBINANT CONSTRUCTS ENCODING
TITLE OF INVENTION: T CELL RECEPTORS SPECIFIC FOR HUMAN HLA-RESTRICTED TUMOR TITLE OF INVENTION: ANTIGENS
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FORENSTER
STREET: 2000 Pennsylvania Avenue, NW, suite 5500
CITY: Washington
STATE: DC
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
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US-10-149-138-4473
US-10-149-138-4500
US-10-149-138-3728
US-10-149-138-3728
US-10-149-138-3736
US-10-149-138-4503
US-10-149-138-4503
US-10-149-138-4562
US-10-245-871-622
US-10-245-871-622
US-10-245-871-622
US-10-333-430-70
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CLASSIFICATION: 435
PRIOR APPLICATION 1973:
PRIOR APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: M.rashio, Kate H
REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 31333-20001.00
TELECHOME: 202-887-1500
TELEPHOME: 202-887-1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEG for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/812,393A
FILING DATE: 05-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
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ZIP: 20006-1888
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid STRANDEDNESS: sin
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US-08-812-393A-49
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GENERAL INFORMATION:
APPLICANT: Sunol Molecular Corporatiopn
APPLICANT: Sherman, Linda
FILE REPRENCE: 3133-20001.01
CURRENT PELING DATE: 2001-02-01
CURRENT FILING DATE: 1997-03-05
PRIOR APPLICATION NUMBER: US 60/012,845
PRIOR APPLICATION NUMBER: US 60/012,845
PRIOR APPLICATION NUMBER: US 60/012,845
PRIOR FILING DATE: 1996-03-05
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 49
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                   Sequence 12, Application US/09277064
; Publication No. US2030064916A1
; Generace 12, Application No. US2030064916A1
; GENERAL. INFORMATION:
    APPLICANT: Sherman, Linda A.
    TITLE OF INVENTION: IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS
    FILE REFERENCE: SCR2152S
; CURRENT APPLICATION NUMBER: US/09/277,064
; CURRENT FILING DATE: 1999-03-26
; PRIOR PILING DATE: 1999-12-14
; PRIOR PLING DATE: 1999-12-14
; PRIOR FILING DATE: 1995-12-14
; NUMBER OF SEQ ID NOS: 39
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 12
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                                                                                                                                    Length 10;
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                                                                                                                                    100.0%; Score 51; DB 3; 100.0%; Pred. No. 0.016;
                                                                                                                                                                                  0; Mismatches
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ORGANISM: Artificial Sequence
FRATURE:
CHER INFORMATION: Synthesized peptide
15-07-774-681-49
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Sequence 49, Application US/09774681
Publication No. US20030208780A1
                                                                                                                                      Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
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Best Local Similarity 100.
Matches 10; Conservative
; SEQ ID NO 12
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-277-074-12
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ORGANISM: Homo sapiens
US-09-277-064-12
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US-09-277-074-12
| Sequence 12. Application US/09277074
| Publication No. US20030022820A1
| GENERAL INFORMATION:
| APPLICANT: Sherman, Linda A. | TITLE OF INVENTION:
| TITLE OF INVENTION: IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS
| CURRENT FILING DATE: 1999-03-26
| CURRENT FILING DATE: 1994-12-14
| PRIOR FILING DATE: 1994-12-14
| PRIOR FILING DATE: 1995-12-14
| PRIOR PILING DATE: 1995-12-14
| NUMBER OF SEQ ID NOS: 39
| SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                    CITY: Seattle
COUNTRY: Washington
COUNTRY: Washington
COUNTRY: DAID4-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ISM PC compatible
CORPUTER: ISM PC compatible
CORPUTER: DAID4 PC COMPACTION SYSTEM: PC-DOS/MS-DOS
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/154,513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0. Thank
                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed and Berry LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 32,629
REFERENCE/DOCKET NUMBER: 920010.448C9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE DESCRIPTION: SEQ ID NO: 29:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 15-Jul-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                 Sequence 29, Application US/09354533
Publication No. US20020055614A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: 29: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
                                                  1 VMAGVGSPYV 10
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         VMAGVGSPYV 10
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APPLICANT: Souttwood, scott
APPLICANT: Cheanut, Robert
APPLICANT: Calls, Esteban
APPLICANT: Calls, Esteban
APPLICANT: Keogh, Elissa
TITLE OF INVENTION: Inducing Cellular Immune Responses to
TITLE OF INVENTION: HERZ/neu Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: HERZ/neu Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: HERZ/neu Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0140001
CURRENT FAPLICATION NUMBER: PCT/US00/33591
PRIOR APPLICATION NUMBER: PCT/US00/33591
PRIOR PILING DATE: 1999-12-11
PRIOR APPLICATION NUMBER: US 09/458,299
PRIOR FILING DATE: 1999-12-11
SOFTWARE: PatentIn version 3.1
SSO ID NO 786
IENGTH: 10
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CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2002-06-10
PRIOR APPLICATION NUMBER: PCT/US00/33591
PRIOR PLING DATE: 2000-12-11
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US-10-149-138-786
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
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PRIOR FILING DATE: 1999-12-11
NUMBER OF SEQ ID NOS: 4641
SEQ ID NO 2952
LENGTH: 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
                                                                                                                                       APPLICANT: Fikes, John
APPLICANT: Sette, Alessandro
APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
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Sidney, John
Southwood, Scott
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Matches 10; Conservative
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Best Local Similarity
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APPLICANT: MUNICHEN
TITLE OF INVENTION: 11-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
TITLE OF INVENTION: 11-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REPERENCE: REH-10.13
CURRENT APPLICATION NUMBER: US/10/245,871
CURRENT PILING DATE: 2003-01-09
PRIOR APPLICATION NUMBER: 10/197,000
PRIOR APPLICATION NUMBER: 09/396,813
SEQUID NOS: 905
SEQUID NO SEQUID NOS: 905
                                                          Gaps
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APPLICANT: Leturcq, Didier
APPLICANT: Degraw, Juli
APPLICANT: Degraw, Juli
APPLICANT: Heiskala, Marja
APPLICANT: Heiskala, Marja
APPLICANT: Peterson, Per
APPLICANT: Jackson, Michael
TITLE OF INVENTION: A CELL THERAPY METHOD FOR THE TREATMENT OF TUMORS
FILE REPERRNCE: ORT-1557
CURRENT APPLICATION NUMBER: US/10/080,013
CURRENT FILING DATE: 2002-02-19
NUMBER OF SEQ ID NOS: 42
SOFTWARE: Patentin version 3.1
SEQ ID NO 16
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Query Match
100.0%; Score 51; DB 3; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels
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Best Local Similarity 100.
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Best Local Similarity 100.
Matches 10; Conservative
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US-10-080-013-16
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; ORGANISM: Homo sapiens
US-10-245-871-620
                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION
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US-10-149-138-4435
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US-10-253-286-620
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APPLICANT: Sette, Alessandro
APPLICANT: Stee, Alessandro
APPLICANT: Stee, Alessandro
APPLICANT: Steeban
APPLICANT: Cells, Esteban
APPLICANT: Keogh, Elisa
APPLICANT: Keogh, Elisa
APPLICANT: Reagn Elisa
TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions
                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Inducing Cellular Immune Responses to TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions CURRENT APPLICATION NUMBER: 02/10/149,138 CURRENT FILING DATE: 2002-06-10
Gaps
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0; Mismatches
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PRIOR FILING DATE: 2002-06-10
PRIOR FILING DATE: 2000-12-11
PRIOR FILING DATE: 1999-12-11
NUMBER OF SEQ ID NOS: 4641
SOFTWARE: Patentin version 3.1
SEQ ID NO 4335
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CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2002-06-10
PRIOR FILING DATE: 2000-12-11
PRIOR APPLICATION NUMBER: US 09/458,299
PRIOR FILING DATE: 1999-12-11
NUMBER OF SEQ ID NOS: 4641
SOFTWARE: Patentin version 3.1
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                                                                                                                                                                          Sequence 4335, Application US/10149138; Publication No. US20040018971A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                          Sette, Alessandro
Sidney, John
Southwood, Scott
Chesnut, Robert
Celis, Esteban
Keogh, Elissa
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ORGANISM: Artificial Sequence
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Best Local Similarity 100.
Matches 10; Conservative
10; Conservative
                                       1 VMAGVGSPYV 10
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US-10-149-138-4422
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APPLICANT:
APPLICANT:
  Matches
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TITLE OF INVENTION: Inducing Cellular Immune Responses to
TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions
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GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: II-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
THE REPRESENCE: 1081-01-13
CURRENT APPLICATION NUMBER: 10/197,000
PRIOR FILING DATE: 2002-07-17
PRIOR PLING DATE: 1999-09-14
NUMBER OF SEQ ID NOS: 905
SOFTWARE: PATENT VET. 2.1
SOFTWARE: PATENT VET. 2.1
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                                                                                                                       Length 10;
                                                                                                                                                                       Mismatches
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PRIOR FILING DATE: 2000-12-11
PRIOR APPLICATION NUMBER: US 09/458,299
PRIOR FILING DATE: 1999-12-11
NUMBER OF SEQ ID NOS: 4641
SEQ ID NO 4435
LENGTH: 10
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CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2002-06-10
; ORGANISM: Artificial Sequence
; PEATURE:
; OTHER INDEMATION: Artificial Peptide
US-10-149-138-4422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Artificial Peptide
                                                                                                                       100.0%;
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APPLICANT: Sette, Alessandro
APPLICANT: Sidney, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Southwood, Scott
Chesnut, Robert
Celis, Esteban
Keogh, Elissa
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Best Local Similarity 100.
Matches 10; Conservative
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Best Local Similarity 100.
Matches 10; Conservative
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APPLICANT: Peterson, Per A.
APPLICANT: Richards, Jon M.
TITLE OF INVENTION: A CELL THERAPY METHOD FOR THE TREATMENT OF TUMORS;
FILE REFERENCE: ORT 1342CIP
CURRENT PELLING DATE: 2002-11-07
CURRENT FILING DATE: 2002-11-07
PRIOR APPLICATION NUMBER: US 60/270,252
PRIOR APPLICATION NUMBER: US 10/080,013
PRIOR FILING DATE: 2001-02-09
PRIOR FILING DATE: 2002-02-19
NUMBER OF SEQ ID NOS: 43
SOFTWARE: Patentin version 3.2
SEQ ID NO 16
LENGTH: 10
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APPLICANT: ROSMATOPOULOS, Kostas
APPLICANT: TOTREOT, Sophie
APPLICANT: SCARDINO, Antonio
APPLICANT: SCARDINO, Antonio
APPLICANT: TITLE OF INVENTION: METHOD FOR SCREENING PEPTIDES FOR USE IN
ITLE OF INVENTION: IMMUNOTHERAPY
                                                                                                 Query Match
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 51; DB 4; Length 10; Best Local Similarity 100.0%; Pred. No. 0.016; Matches 10; Conservative 0; Mismatches 0; Indels
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CURRENT APPLICATION NUMBER: US/10/333,430
CURRENT FILING DATE: 2003-10-02
PRIOR APPLICATION NUMBER: FR 0009591
PRIOR FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 70
SOFTWARE: Patentin Ver. 2.1
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; FEATURE:
; OTHER INFORMATION: Synthetic Construct
US-10-289-566-16
                                                                                                                                                                                                                                                                                                                            RESULT 14
US-10-289-566-16
US-10-289-566-16
Sequence 16, Application US/10289566
Publication No. US20040011671A1
GENERAL INFORMATION
APPLICANT: Leturcq, Didier J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 31, Application US/10333430
Publication No. US20040072240A1
GENERAL INFORMATION:
APPLICANT: INSERM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Moriarty, Ann M.
Jackson, Michael R.
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ORGANISM: Artificial Sequence
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// TYPE: PRT
// ORGANISM: Homo sapiens
US-10-253-286-620
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; ORGANISM: Artificial sequence
; PERTURE:
; OTHER INSTITUTION: Synthetic peptide
US-10-333-430-31

Query Match

Query Match

Best Local Similarity 100.0%; Score 51; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps

OY 1 VMAGVGSPYV 10

Db 1 VMAGVGSPYV 10

Search completed: April 11, 2006, 19:39:07
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53, App
Appli
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Sequence 622, App
                                                                                                    April 11, 2006, 19:36:30 ; Search time 25 Seconds (without alignments) 12.477 Million cell updates/sec
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1: /SIDS5/ptodata/1/pubpaa/USO8 NEW PUB.pep:*

2: /SIDS5/ptodata/1/pubpaa/USO6 NEW PUB.pep:*

3: /SIDS5/ptodata/1/pubpaa/USO7 NEW PUB.pep:*

4: /SIDS5/ptodata/1/pubpaa/PCT_NEW PUB.pep:*

5: /SIDS5/ptodata/1/pubpaa/USO7 NEW PUB.pep:*

6: /SIDS5/ptodata/1/pubpaa/US10_NEW PUB.pep:*

7: /SIDS5/ptodata/1/pubpaa/US10_NEW PUB.pep:*

8: /SIDS5/ptodata/1/pubpaa/US10_NEW PUB.pep:*
GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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1-055-822-946
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-10-957-887B-251
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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51
1 VMAGVGSPYV 10
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Maximum DB seq length: 20000000
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Match Length DB
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Perfect score:
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26	34	66.7	462	7	US-11-082-389-412	Sequence	412, App
27	34	66.7	1433	7	US-11-094-519A-40	Sequence	40.
28	33	64.7	112	7	US-11-230-180-17	Sequence	17,
53	33	64.7	358	7	US-11-087-099-11741	Sequence	1174
30	33	64.7	363	1	US-11-087-099-2715	Sequence	2715,
31	33	64.7	363	7	US-11-087-099-3776	Sequence	3776, Ap
32	33	64.7	363	۲	US-11-087-099-4337	Sequence	4337,
33	33	64.7	491	7	US-11-098-686-10836	Sequence	
34	33	64.7	748	7	US-11-096-568A-34369	Sequence	34369,
35	32	62.7	208	7	US-11-096-568A-22891	Sequence	22891,
36	32	62.7	237	7	US-11-096-568A-33599	Sequence	33599, A
37	32	62.7	256	7	US-11-096-568A-22890	Sequence	22890,
38	32	62.7	284	~	US-11-096-568A-33598	Sequence	33598, A
39	32	62.7	313	7	US-11-087-099-257	Sequence	257,
40	32	62.7	313	7	US-11-096-568A-33597	Sequence	33597,
41	32	62.7	324	۲	US-11-087-099-10913	Sequence	10913, A
42	32	62.7	324	^	US-11-051-720-1349	Sequence	1349, Ap
43	32	62.7	344	7	US-11-087-099-7157	Sequence	7157, Ap
44	35	62.7	362	7	US-11-087-099-1068	Sequence	1068, Ap
45	32	62.7	369	7	US-11-087-099-9241	Sequence	9241, Ap

ALIGNMENTS

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APPLICANT: NOWENELS, NOBELLA
APPLICANT: NOWENELS, NOBELLA
TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REFERENCE: REH-20170801
CURRENT APPLICATION NUMBER: 10/11/033,039
CURRENT FILING DATE: 2005-01-11
PRIOR FILING DATE: 2002-09-17
SPRIOR FILING DATE: 1999-09-14
NUMBER OF SEQ ID NOS: 1452
SOFTWARE: Patentin version 3.3
SEQ ID NO 620
LENGTH: 10
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Publication No. US20060002947A1
GENERAL INFORMATION:
APPLICANT: HUMPHREYS, ROBERT
APPLICANT: HUMPHREYS, ROBERT
APPLICANT: XU, MINZHEN
TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REPERBYCE: REH-2017US01
CURRENT APPLICATION NUMBER: US/11/033,039
CURRENT FILING DATE: 2005-01-11
PRIOR PILING DATE: 2002-09-17
PRIOR PLING DATE: 2002-09-17
PRIOR APPLICATION NUMBER: 10/197,000
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100.0%; Pred. No. 0.00065;
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                  Sequence 620, Application US/11033039
Publication No. US20060002947A1
GENERAL INFORMATION:
APPLICANT: HUMPHREYS, ROBERT
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Best Local Similarity 100.
Matches 10; Conservative
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; ORGANISM: Homo sapiens
US-11-033-039-620
US-11-033-039-620
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Sequence 148, 7 Sequence 3138,

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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Tagged Epitope Protein Transposable Element
FILE REFERENCE: 61589
CURRENT APPLICATION NUMBER: US/10/968,629
CURRENT APPLICATION NUMBER: US/10/968,629
CURRENT FILING DATE: 2004-10-18
PRIOR APPLICATION NUMBER: 09/979,338
PRIOR PILING DATE: 2001-11-21
PRIOR FILING DATE: 2000-05-26
PRIOR FILING DATE: 2000-05-26
PRIOR FILING DATE: 1999-05-26
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PATCHILD VOY: 2.1
                                                                                                                                                                                                                                                 OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: hybrid peptide
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APPLICANT: Heffron et al.
APPLICANT: Heffron et al.
TITLE OF INVENTION: Tagged Epitope Protein Transposable Element
FILE REFERENCE: 61589
CURRENT APPLICATION NUMBER: US/10/968,629
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                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 51; DB 7; 100.0%; Pred. No. 0.0016;
PRIOR FILING DATE: 2002-07-17
PRIOR APPLICATION NUMBER: 09/396,813
PRIOR FILING DATE: 1999-09-14
NUMBER OF SEQ ID NOS: 1452
SOFTWARE: Patentin version 3.3
SEQ ID NO 622
LENGTH: 23
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Publication No. US20060040382A1
GENERAL INFORMATION:
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Publication No. US20060040382A1
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Best Local Similarity 100
Matches 10; Conservative
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                                                                                                                                                                                                                                                                                                                                               ; LOCATION: (5)...(5)
; OTHER INFORMATION: Avâ
US-11-033-039-622
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Best Local Similarity
Matches 10; Conserva
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LENGTH: 82
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APPLICANT: Brown, Eugene
APPLICANT: Liu, Wei
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR DIAGNOSING, PREVENTING, AND TREATI:
TITLE OF INVENTION: CANCERS
FILE REPERBACE: AM101079 (031896-010000)
CURRENT APPLICATION NUMBER: US/10/770,726
CURRENT FILING DATE: 2004-02-04
NUMBER OF SEQ ID NOS: 48640
SOFTWARE: Patentin version 3.2
SEQ ID NO 62
TENTION 10.56
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US-10-968-629-31
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR MODULATING
TITLE OF INVENTION: A CYTOTOXIC T LYMPHOCYTE IMMUNE RESPONSE
FILE REPERENCE: DFN-043CN
CURRENT APPLICATION NUMBER: US/11/022,562
CURRENT FILING DATE: 2004-12-22
PRIOR APPLICATION NUMBER: FOT/US03/20322
PRIOR PLING DATE: 2003-06-27
PRIOR APPLICATION NUMBER: 60/392718
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Pred. No. 0.0072;
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100.0%; Pred. No. v.
0; Mismatches
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100.0%; Pred. No. ...
0; Mismatches
CURRENT FILING DATE: 2004-10-18
PRIOR APPLICATION WURBER: 09/979,338
PRIOR FILING DATE: 2001-11-21
PRIOR FILING DATE: 2000-05-26
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/136,210
PRIOR APPLICATION WUMBER: 60/136,210
PRIOR PILING DATE: 1999-05-26
NUMBER OF SEQ ID NOS: 33
SSOFTWARE: PATENTIN Ver. 2.1
LENGTH: 92
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Publication No. US20050249742A1
GENERAL INFORMATION:
APPLICANT: Ruprecht, Ruth M.
                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Artificial Sequence
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Best Local Similarity 100.
Matches 10; Conservative
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Best Local Similarity 100.
Matches 10; Conservative
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US-10-770-726-62
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Leach, Dana
Nielsen, Klaus
Karlsson, Gunilla
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Gautam, Anand
Dalum, Iben
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 10; Conservative
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Leach, Dana
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CORGANISM: Homo sapiens
US-11-155-288-9
                       ; ORGANISM: Homo sapiens
US-11-033-039-553
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                                                                                                                                           Query Match
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| Publication No. US2066002947A1
| GENERAL INFORMATION |
| APPLICANT: NU. MIZZHEN |
| APPLICANT: XU, MIZZHEN |
| TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES |
| TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES |
| TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES |
| CURRENT PELING DATE: 2005-01-11 |
| PRIOR PELING DATE: 2005-09-17 |
| PRIOR PELING DATE: 2002-09-17 |
| PRIOR PELING DATE: 2002-09-17 |
| PRIOR PELING DATE: 2002-09-14 |
| NUMBER OF SEQ ID NOS: 1452 |
| SOFTWARE: PALENTIN NUMBER |
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Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 10; Conservative 0; Mismatches 0: Indele
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100.0%; Score 51; DB 7; Length 1255;
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 10; Conservative 0; Mismatches 0; Indels
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CURRENT APPLICATION NUMBER: US 60/590,473
PRIOR APPLICATION NUMBER: US 60/590,473
PRIOR APPLICATION NUMBER: US 60/564,893
PRIOR PILING DATE: 2004-07-23
PRIOR APPLICATION NUMBER: US 60/564,893
PRIOR PILING DATE: 2004-04-22
NUMBER OF SEQ ID NOS: 24
SOFTWARE PETENTIN VERSION 3.3
SEQ ID NO 10
PRIOR FILING DATE: 2002-06-27
NUMBER OF SEQ ID NOS: 340
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 213
LENGTH: 1255
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US-11-113-202-10
Sequence 10, Application US/11113202
Publication No. US20050272637A1
GENERAL INFORMATION:
APPLICANT: Clinton, Gail M.
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US-11-113-202-10
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TYPE: PRT
ORGANISM: Artificial Sequence
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Best Local Similarity 88.9
Matches 8; Conservative
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Best Local Similarity
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Publication No. US20060002947A1

GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: HUMPHREYS, ROBERT

APPLICANT: HUMPHREYS, ROBERT

APPLICANT: KU, MINZHEN

TITLE OF INVENTION: LI-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES

PILE REFERENCE: REH-2017U801

CURRENT APPLICATION NUMBER: 10/245,071

PRIOR PELING DATE: 2002-01-71

PRIOR PELING DATE: 2002-07-17

PRIOR APPLICATION NUMBER: 10/297,000

PRIOR PELING DATE: 2002-07-17

PRIOR PELING DATE: 2002-07-17

PRIOR PELING DATE: 10/99-09-14

NUMBER OF SEQ ID NOS: 1452

SEGOTUMES: Patentin Version 3.3
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                                                                                     100.0%; Score 51; DB 7; Length 1255; 100.0%; Pred. No. 0.12;
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APPLICANT: MONAHAN, JOHN J.
APPLICANT: LANGTON, BEATRICE CLAUDIA
APPLICANT: HANCOCK, MIRIAM B.C.
APPLICANT: CHAO, LORINIB A.
TITLE OF INVENTION: C-ERBB-2 EXTERNAL DOMAIN: GP75
FILE REFERENCE: BBBIO-111-C1
CURRENT FPLICATION NUMBER: US/11/175,405
CURRENT FLICATION DATE: 2005-07-07
NUMBER OF SEQ ID NOS: 2
SOFFWARE: Patentin Ver. 2.1
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100.0%; Score 51;
Best Local Similarity 100.0%; Pred. No. Matches 10; Conservative 0; Mismatch
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                                                                                                             Best Local Similarity 100.
Matches 10, Conservative
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; ORGANISM: Homo mapiens
US-11-175-405-2
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US-11-033-039-930
                     ; ORGANISM: Homo sapiens
US-11-202-516-4
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LENGTH: 1255
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LENGTH: 1258
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TYPE: PRT
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US-11-033-039-908
Sequence 908, Application US/11033039
Sequence 908, Application US/11033039
Publication No. US20060002947A1
SEMERAL INFORMATION:
APPLICANT: HUMPHRENS:
TITLE OF INVENTATION:
FILE REFERENCE: REH-2017USO1
CURRENT APPLICATION UNMER: US/11/033,039
CURRENT APPLICATION NUMBER: 10/245,871
PRIOR FILING DATE: 2002-09-17
PRIOR FILING DATE: 2002-09-17
PRIOR PLING DATE: 2002-09-17
PRIOR PLING DATE: 1999-09-14
NUMBER OF SEQ ID NOS: 1452
SOFTWARE: Patentin Version 3.3
SEQ ID NO 908
SEQ ID NO 908
SEQ ID NO 908
SEG ID NO 908
   0; Gaps
1; Indels
 0; Mismatches
8; Conservative
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Best Local Similarity 100.
Matches 7; Conservative
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ORGANISM: Homo sapiens
US-11-033-039-908
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                                                                    1 VMDGVGSPY 9
Matches
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Search completed: April 11, 2006, 19:39:38 Job time : 26 secs

4 GVGSPYV 10 ||||||| 1 GVGSPYV 7

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GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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OM protein - protein search, using sw model

Run on:

April 11, 2006, 19:31:00 ; Search time 38 Seconds (without alignments) 25.320 Million cell updates/sec.

US-09-277-064-12 51 1 VMAGVGSPYV 10 Perfect score: Title:

Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 Total number of hits satisfying chosen parameters:

283416 seqs, 96216763 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 20000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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	Description	protein-tyrosine k		p-185 precursor -	hypothetical prote	S	Ď.	uridylate kinase [UMP kinase (EC 2.7				hypothetical prote	enhancer of split	UL34 protein - hum	hypothetical prote	ᄰ	isoleucyl-tRNA syn		hypothetical prote	2-dehydro-3-deoxy-	hypothetical prote	permease protein o	component	helo protein U4905		IMP dehydrogenase	transforming prote		probable RNA-direc
SUMMARIES	ΩI	A24571	TVRTNU	148161	T09037	A69091	S04987	B95109	E97977	F70780	G90450	D83679	T35138	D46177	WMBEH4	S65829	B48189	AC1327	AE1698 .	E83150	AD3358	876153	AI1966	AD2583	B97365	H70736	S72823	S10893	RRVQLL	RRVQWA
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698	756	827	881	240	276	307	307	391	434	434	610	662	662	938	1427
9.89	68.6	9.89	9.89	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
35	35	35	35	34	34	34	34	34	34	34	34	34	34	34	34
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

protein-tyrosine kinase (EC 2.7.1.112) erbB2 precursor – human N'Alternate names: c-erb-B-2 protein precursor; kinase-related transforming protein er

C;Species: Homo sapiens (man)
C;Date: 25-Oct-1987 #sequence revision 06-Dec-1996 #text change 05-Oct-2004
C;Date: 25-Oct-1987 #sequence revision 06-Dec-1996 #text change 05-Oct-2004
C;Accession: A24571; A25491; Ā44188; B44188; I59509; I57622
R;Xamamoto, T.; Ikawa, S; Akiyama, T.; Semba, K.; Nomura, N.; Miyajima, N.; Saito, T.
Nature 319, 230-234, 1986
A;Title: Similarity of protein encoded by the human c-erb-B-2 gene to epidermal growth
A;Reference number: A24571; MUID:86118663; PMID:3003577,

A; Accession: A24571

A; Molecule type: mRNA A; Readdues: 1.1255 < TNA A; Cross-references: UNIPROT: P04626; UNIPARC: UPI000003F55F; GB: X03363; NID: 931197; PIDN R; Semba, K.; Kamata, N.; Toyoshima, K.; Yamamoto, T. Proc. Natl. Acad. Sci. U.S.A. 82, 6497-6501, 1985 A; Title: A v-erbB related protoconcogene, c-erbB-2, is distinct from the c-erbB-1/epide A; Reference number: A25491; MUID: 86016729; PMID: 2995967

A;Accession: A25491
A;Molecule type: DNA
A;Residues: 737-1031 <SEM>
A;Residues: 737-1031 <SEM>
A;Cross-references: UNIPARC:UPI000016A8A7; GB:M11767; NID:g182163; PIDN:AAA35808.1; PI:
A;Crossens, L.; Yang-Peng, T.L.; Liao, Y.C.; Chen, B.; Gray, A.; McGrath, J.; Seeburg, Science 230, 1132-1139, 1985

Fitle: Tyrosine kinase receptor with extensive homology to EGF receptor shares chrom: Reference number: A44188; MUID:86070181; PMID:2999974

A;Molecule type: DNA A;Residues: 740-910 <COUI>. A;Cross-references: UNIPARC:UPI000016AA26; GB:M12036; NID:g183988; PIDN:AAA35978.1; PII A;Accession: B44188.

A; Molecule type: mRNA A; Residues: 1-517, RALL, 522, 8',524-654, 'V', 656-1169,'A',1171-1255 <COU2> A; Cross-references: UNIPARC: UP100001725C7; GB:M11730; NID:9183986 Science 229, 974-976, 1985 A; King, C.R.; Kraus, M.H.; Aaronson, S.A. A; Title: Amplification of a novel v-erbB-related gene in a human mammary carcinoma. A; Reference number: 159509; MUID:85272597; PMID:2992089

A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: DNA
A;Molecule type: DNA
A;Molecule type: DNA
A;Rossidues: 832-909 <REX>
A;Cross-references: UNIPARC:UPI0000070A3F; GB:L29395; NID:G459807; PIDN:AAA35809.1; PI)
R;Tal, M.; King, C.R.; Kraus, M.H.; Ullrich, A.; Schlessinger, J.; Givol, D.
A;Title: Human HER2 (neu) promoter: evidence for multiple mechanisms for transcription: A;Reference number: 157622; MUID:87286898; PMID:3039351

Status: translated from GB/EMBL/DDBJ

A; Molecule type: DNA A; Residues: 1-191 <TAL>

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F;882,1227,1253/Binding site: phosphate (Tyr) (covalent) #status predicted
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A;Residues: 1-1260 cBRA:
A;Cross-references: UNIPROT:P06494; UNIPARC:UPI0000161B83; EMBL:X03362; NID:956745; PIDN
R;Masui, T.; Mann, A.M.; Mcatee, T.L.; Garland, E.M.; Okamura, T.; Smith, R.A.; Cohen,
Carcinogenesis 12, 1975-1978, 1991
A;Title: Direct DNA sequencing of the rat new oncogene transmembrane domain reveals no m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Superfamily: Tyrosine-protein kinase, EGF receptor type; protein kinase homology C;Superfamily: autophosphorylation; duplication; glycoprotein; phosphoprotein; phosphor F;1-19/Domain: signal sequence #status predicted <SIG>F;1-19/Domain: signal sequence #status predicted <SIG>F;20-1260/Product: protein-tyrosine kinase neu #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                      A; Description: catalyzes the phosphorylation of a peptidyl tyrosine residue by ATP C; Superfamily: Tyrosine-protein kinase, EGF receptor type; protein kinase homology C; Keywords: ATP; autophosphorylation; duplication; glycoprotein; phosphoprotein; phospho
       A,Cross-references: UNIPARC:UPI000000427; GB:M16792; NID:g183983; PIDN:AAAS8637.1; PID:
C,Comment: Amplification and overexpression of this erbB-related gene occurs in about 3d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ,676-1255/Domain: intracellular #status predicted <INT>
1718-983/Domain: protein kinase homology <KIN>
1726-734/Region: protein kinase ATP-binding motif
1868-14,187,259,530,571,629/Binding site: carbohydrate (Asn) (covalent) #status predict
1868/Binding site: phosphate (Thr) (covalent) (by protein kinase C) #status predicted
1753/Active site: Lys #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     F;753/Active site: Lys #status predicted
F;1139,1221,1222,1248/Binding site: phosphate (Tyr) (covalent) (by autophosphorylation)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F;723-988/Domain: protein kinase homology <KIN>
F;711-739/Region: protein kinase ATP-binding motif
F;711-739/Region: protein kinase ATP-binding motif
F;711-735,576,634/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;611/Binding site: phosphate (Thr) (covalent) #status predicted
F;758/Active site: Lys #status predicted
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A;Reference number: A24562; MUID:86118662; PMID:3945311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein-tyrosine kinase (BC 2.7.1.112) neu precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 05-Oct-2004
C;Accession: A24562; A61204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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22-1255/Product: protein-tyrosine kinase erbB2 #status predicted <MAT>
22-653/Pomain: extracellular #status predicted <EXT>
22-653/Pomain: EXF receptor extracellular domain repeat <EE1>
395-605/Domain: ECF receptor extracellular domain repeat <EE2>
554-675/Domain: transmembrane #status predicted <TMM's
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         thiazolyl)formamide or N-methyl-N-nitrosourea.
Reference number: A61204; MUID:92035293; PMID:1682063
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Nature 319, 226-230, 1986
                                                                                                                                                       A;Cross-references: GDB:120613; OMIM:164870
A;Map position: 17921.1-17921.1
A;Introns: 25/1, 75/3; 147/1; 883/3
A;Note: the list of introns is incomplete
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C;Accession: T09037
K;Bevan, M.; Lennard, N.; Quail, M.; Harris, B.; Rajandream, M.A.; Barrell, B.G.; Banc
submitted to the Protein Sequence Database, June 1999
A;Reference number: Z16533
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A; Residues: 1-148 <BED.
A; Cross-references: UNIPROT: 09M016; UNIPARC: UPI000009E5E1; EMBL: AL049803; GSPDB:GN0006
A; Experimental source: cultivar Columbia; BAC clone F26K10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Residues: 1-1254 <RES>
A;Cross-references: UNIPROT:Q60553; UNIPARC:UP1000012A111; GB:D16295; NID:g493236; PID
                                                                                                                                                                                                                                                                                                                                                                                                                      R;Nakamura, T.; Ushijima, T.; Ishizaka, Y.; Nagao, M.; Arai, M.; Yamazaki, Y.; Ishikaw Gene 140, 251-255, 1994
A;Title: Cloning and activation of the Syrian hamster neu proto-oncogene.
A;Reference number: I48161; MUID:94193007; PMID:7908275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ,Superfamily: Tyrosine-protein kinase, EGF receptor type; protein kinase homology
;Keywords: ATP
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                                                                                                                                                                                                                                                                                                                 p-185 precursor - golden hamster
C;Species: Mesocricetus auratus (golden hamster)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 05-Oct-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 09-Jul-2004
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C,Superfamily: Arabidopsis thaliana hypothetical protein P26K10.90
  DB 1; Length 1260
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    Arabidopsis thaliana

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Pred. No. 0.82;
1; Mismatches (
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Pred. No. 12;
2; Mismatches
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A, Status: preliminary; translated from GB/EMBL/DDBJ
A, Molecule type: mRNA
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F,726-734/Region: protein kinase ATP-binding motif
                          0.22;
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                                                           0; Mismatches
100.0%; Score 51; 100.0%; Pred. No.
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90.0%;
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Gaps

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Indels

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on, J.D.; Umayam, L.A.; White, O.; Salzberg, S.L.; Lewis, M.R.; Radune, D.; Holtzapple nson, T.; Hickey, B.K.; Holt, I.B. Science 293, 498-506, 2001
Science 293, 498-506, 2001
A;Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrisc A;Reference number: A95000; MUD:21357209; PMID:11463916
A;Accession: B95109
A;Accession: B95109
A;Status: pre-innary
A;Molecule type: DNA
A;Residues: 1-247 <KUR>
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J; Bacteriol. 183; 5709-5717, 2001
A;Authors: Yang, Y.; Young-Bellido, M.; Zhao, G.; Zook, C.; Baltz, R.H.; Jaskunas, S.R.A;Title: Genome of the Bacterium Streptococcus pneumoniae Strain R6.
A;Reference number: A97872; MUID:21429245; PMID:11544234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cincession: F70780
R; Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Gordon, R; Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Gordon, Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Holroyd, Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Alathores: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A.Aththores: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A.Aththores on the beciphering the biology of Mycobacterium tuberculosis from the complete genom A; Reference number: A70500; MUID:98295987; PMID:9634230
                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references; UNIPROT:Q97R83; UNIPARC:UPI0000051655; GB:AE005672; PIDN:AAK75067.
A;Experimental source: gtrain TIGR4
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cross-references: UNIPROT:QBDQ50; UNIPARC:UP100000E3531; GB:AE007317; PIDN:AAK99649
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C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
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Date: 22-Oct-2001 #sequence_revision 22-Oct-2001 #text_change 09-Jul-2004
Accession: B97977
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1; Mismatches
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85.7%;
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85.7%;
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C,Superfamily: uridylate kinase
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135 AGIGSPY 141
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AGIGSPY 141
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Matches 6; Conserv
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A, Molecule type: DNA
A, Residues: 1-247 < KUR>
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cell division protein Fts2 - Methanobacterium thermoautotrophicum (strain Delta H)
C;Species: Methanobacterium thermoautotrophicum
C;Species: Methanobacterium thermoautotrophicum
C;Date: OS-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Accession: A69091
R;Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, T.;
i, Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwani, N.;
i, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N.
J. Bacteriol. 179, 7135-7155, 1997
A;Title: Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: funct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        uridylate kinase [imported] - Streptococcus pneumoniae (strain TIGR4)
C;Species: Streptococcus pneumoniae
C;Species: Streptococcus pneumoniae
C;Date: 0.3-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 09-Jul-2004
C;Accession: B95109
R;Tettelin, H.; Nelson, K.E.; Paulsen, I.T.; Eisen, J.A.; Read, T.D.; Peterson, S.; Heid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UNIPARC:UP1000012AD23; GB:AE000925; GB:AE000666; NIT
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A,Residues: 1-697 <JEN1>
A,Cross-references: UNIPROT:P19965, UNIPARC:UP100001714BC; EMBL:X16078; NID:g64403; PIDN
A,Accession: S30070
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A, Residues: 2-11;435-499, X', 451-452, X', 454-459;634-649 <JENZ>
A, Residues: 2-11;435-499, X', 451-452, X', 454-459;634-649 <JENZ>
A, Residues: 2-11;435-499, X', 451-452, X', 454-459;634-649 <JENZ>
A, Cross-references: UNIPARC:UPI0001714109; UNIPARC:UPI0000174109; Superfamily: SITS-binding protein spl05
C, Superfamily: SITS-binding protein status experimental <MAT>
C, Steywords: disulfide bond; glycoprotein, homodimer; transmembrane #status predicted <TM1>
F;2-697/Product: SITS-binding protein #status predicted <TM2>
F;30-507/Domain: transmembrane #status predicted <TM2>
F;503-521/Domain: transmembrane #status predicted <TM2>
F;542-562/Domain: transmembrane #status predicted <TM3>
F;542-562/Domain: transmembrane #status
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A, Status: preliminary; nucleic acid sequence not shown; translation not shown
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S04987
S175-binding protein spl05 - Pacific electric ray
C;Species: Torpedo californica (Pacific electric ray)
C;Species: Torpedo californica (Pacific electric ray)
C;Date: 30-Jun-1993 #sequence_revision 30-Jun-1993 #text_change 09-Jul-2004
C;Accession: S04987; S30070
Biochem. J. 261, 155-166, 1989
A;Title: Primary structure of a novel 4-acetamido-4'-isothiocyanostilbene-2,
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A,Start codon: TTG
C,Superfamily: cell division protein fts2
F;133-139/Region: tubulin/Fts2 GTP/GDP-binding (G-G-T-G-[ST]-G)
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Pred. No. 20;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: DNA
A;Residues: 1.381 <MTH>
A;Cross-references: UNTROT:027712;
A;Experimental source: strain Delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 70.0%;
Matches 7; Conservative
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Best Local Similarity 100.
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A;Cross-references: UNIPROT:Q01068; UNIPARC:UPI000000118F; EMBL:M96165; NID:g158490; F
A;Note: sequence extracted from NCBI backbone (NCBIP:114183)
R;Knust, E.; Schrons, H.; Grawe, F.; Campos-Ortega, J.A.
Genetics 132, 505-518, 1992
A;Title: Seven genes of the Enhancer of split complex of Drosophila melanogaster encod A;Reference number: A38980; MUID:93051287; PMID:1427040
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A;Cross-references: UNIPARC:UPI000016BC2C; EMBL:X67046; NID:g8073; PIDN:CAA47431.1; PI
A;Experimental source: strain Oregon R
                                                                                                                                                                                                                                                                                                                                 A; cross-references: UNIPROT:050486; UNIPARC:UPI00000DAB8E; EMBL:AL020958; PIDN:CAA1587
A; Experimental source: strain A3(2)
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C;Date: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_change 09-Jul-2004
C;Accession: G30085
R;McGeoch, D.J.; Dalrymple, M.A.; Davison, A.J.; Dolan, A.; Frame, M.C.; McNab, D.; Pe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               enhancer of split locus protein m3 - fruit fly (Drosophila melanogaster)
NyAlternate names: E(Spl)-HLH-m3; helix-loop-helix protein m3
C;Species: Drosophila melanogaster
C;Date: 21-Sep-1993 #sequence revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: D46177; D38980; Z27814; S28449
R;Delidakis, C; Artavanis-Tsakonas, S.
Proc. Nall. Acad. Sci. U.S.A. 89, 8731-8735, 1992
A;Title: The Enhancer of split [E(Spl)] locus of Drosophila encodes seven independent A;Reference number: A46177; MUID:92409590; PMID:1528887
                                                                            C;Species: Streptomyces coelicolor
C;Date: 05-Nov-1999 #sequence_revision 05-Nov-1999 #text_change 09-Jul-2004
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                                              Nypothetical protein SC4H8.07c SC4H8.07c - Streptomyces coelicolor
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                                                                                                             C,Accession: T35138
R;Harris, D.; Parkhill, J.; Barrell, B.G.; Rajandream, aubmitted to the EMBL Data Library, December 1997
A;Reference number: Z21569
                                                                                                                                                                                                                                                    A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-66 <HAR>
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Pred. No. 28;
1; Mismatches
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Pred. No.
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Best Local Similarity 87.5%;
Matches 7; Conservative
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ilarity 75.0%;
Conservative
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nes 6; Conserv
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A;Molecule type: mRNA
A;Residues: 1-224 <DEL>
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C;Species: Bacillus halodurans
C;Species: Bacillus halodurans
C;Species: Bacillus halodurans
C;Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 09-Jul-2004
C;Accession: D83679
R;Takami, H: Nakasone, K:; Takaki, Y:; Maeno, G;; Sasaki, R:; Masui, N:; Fuji, F:; Hirst Nucleic Acids Res. 28, 4317-4317, 2000
A;Tite: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and A;Reference number: A83650; MUID:20512582; PMID:11058132
A;Accession: D83679
A;Accession: D83679
A;Accession: D83679
A;Residues: 1-1020 <STO>
A;Residues: 1-1020 <STO>
A;Cross-references: UNIPROT:09KG76; UNIPARC:UP100000C37F3; GB:AP001507; GB:BA000004; NIE
A;Experimental source: strain C-125
A;Residues: 1-288 <COL>
A;CROSS-references: UNIPROT:Q10543; UNIPARC:UPI0000139DAD; GB:Z73101; GB:AL123456; NID:g
A;Experimental source: strain H37Rv
C;Genetics:
A;Gene: Rv0881
C;Superfamily: conserved hypothetical protein H10860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: DNA
A;Residues: 1-388 «KUR»
A;Cross-references: UNIPROT:097V83; UNIPARC:UPI000006483D; GB:AE006641; NID:g13816083;
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cispecies: Sulfolobus solfataricus
Cidate: 24 may-2001 #sequence_revision 24-May-2001 #text_change 09-Jul-2004
CiAccession: G90450
Rishe, O.; Singh, R.K.; Confalonieri, F.; Zivanovic, Y.; Allard, G.; Awayez, M.J.; Char
Jong, I.; Jeffrises, A.C.; Kozera, C.J.; Medina, N.; Peng, X.; Thi-Ngoc, H.P.; Redder,
arrett, R.A.; Ragan, M.A.; Sensen, C.W.; Van der Oost, J.
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                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
G90450
hypothetical protein SSO2752 [imported] - Sulfolobus solfataricus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72.5%; Score 37; DB 2; Length 1020; 85.7%; Pred. No. 81; ive 1; Mismatches 0; Indels
                                                                                                                                                                                  Score 37; DB 2; Length 288; Pred. No. 23; 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Length 388
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Description: Sulfolobus solfataricus complete genome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 37; DB 2
Pred. No. 31;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72.5%;
60.0%;
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                                                                                                                                                                                  Query Match 72.5
Best Local Similarity 75.0
Matches 6; Conservative
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Best Local Similarity 60.0
Matches 6, Conservative
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16 IKGGVGTPYV 25
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A, Accession: G90450
A, Status: preliminary
                                                                                                                                                                                                                                                                                                                         |||||||
83 LAGVGAPY 90
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Best Local Similarity
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9
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A; Title: The complete DNA sequence of the long unique region in the genome of herpes simple fracence number: A30083; MUID:88274327; PMID:2839594
A; Reference number: A30083; MUID:88274327; PMID:2839594
A; Accession: G30085
A; Molecule type: DNA
A; Residues: 1-275 <MCG>
A; Residues: 1-275 <MCG>
A; Crosser references: UNIPROT:P10218; UNIPARC:UP10000137B9E; GB:X14112; NID:g1944536; PIDN C; Genetics:
A; Gene: UL34
C; Superfamily: varicella-zoster virus gene 24 protein
                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
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Pred. No. 34;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                        70.6%;
                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 75.0
Matches 6; Conservative
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2 MAGVGSPY 9 ò

Species: beet mild yellowing virus pare: 1997 #text_change 31-Oct-1997 Accession: 865829 hypothetical protein 3 - beet mild yellowing virus

Riguilley, H.; Richards, K.E.; Jonard, G. Arch. Virol. 140, 1109-1118, 1995 A;Title: Nucleotide sequence of beet mild yellowing virus RNA. A;Reference number: S65825; MUID:95336315; PMID:7611881 A;Accession: S65829

A,Molecule type: genomic RNA
A,Residues: 1-625 <GUI>
A,Crose-references: UNIVARC:UPI00001757FF; EMBL:X83110
A,Experimental source: isolate 21TB
A,Note: this reading frame extends between two stop codons and does not begin with a sta C,Superfamily: potato leaf roll virus RNA-directed RNA polymerase

Gaps Score 36; DB 2; Length 625; Pred. No. 77; 0; Mismatches 1; Indels Query Match
Best Local Similarity 87.5%;
Matches 7; Conservative

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273 AGVGVPYV 280 3 AGVGSPYV 10 셤 Search completed: April 11, 2006, 19:35:24 Job time : 40 secs

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126 VMAGVGSPYV 135
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PubMed=15705889;
Query Match
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Q68KJ7 FE
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                                                                                        April 11, 2006, 19:27:40; Search time 230 Seconds (without alignments) 30.675 Million cell updates/sec
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P65938
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            GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd
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LABB2_CANPA

Q8K3 F9 RAT

Q6ZPEO_MOUSE

"BB2 MESAU

"37 G1BZE

"TET"
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                                                                                                                                                                                                                                         2166443 segs, 705528306 residues
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08LFF9_ARATH

0523R8_MAGATH

0523R8_MAGATH

04NWC7_9MICC

08KU13_ACTPA

08DSY1_STRWD

09WWAZ_SYNP6

050WMZ_SYNP6

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PYRH_STRPY
Q8DYG8_STRA5
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O6ZMM4_HUMAN
O8COE7_MOUSE
ERBB2_HUMAN
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Q4H1F2_HUMAN
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Maximum Match 100%
Listing first 45 summaries
                                                                using sw model
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Gapop 10.0 , Gapext 0.5
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1: uniprot_sprot:*
2: uniprot_trembl:*
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51
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Maximum DB seq length: 20000000
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Match
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sulfolobus
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25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Fells silvestris catus (Cat).
Fulls silvestris catus (Cat).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Felinae; Butheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
Felinae; Felis.
NCBL_TaxID=9685;
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Q86431
Q5m141
Q5m360
Q4m360
Q97783
Q86450
Q8643
Q86405
Q8405
Q8405
Q8405
Q8405
Q8405
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                      Q4NGD9 9MICC
PYRH STRR6
PYRH STRR6
Y881 MYCTU
Y905 MYCBO
Q8PX83 METMA
Q8TN86 METAC
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SULSO
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O5M5N0
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tes 10; Conservative
 1 VMAGVGSPYV 10
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us-09-277-064-12.rup

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Muroidea; Muridae
NCBI_TaxID=10090;
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Kanehori K., Ishlbashi T., Chiba Y., Fujimori K., Hiraoka S.,
Tanai H., Watanabe S., Ishlda S., Ono Y., Hotuta T., Watanabe M.,
Sugiyama T., Irie K., Otsuki T., Sato H., Ota T., Wakamaten A.,
Ishli S., Yamamoto J., Isono Y., Kawai-Hio Y., Saito K., Nishikawa T.,
Kimura K., Matsuo K., Nakamura Y., Sekine M., Kikuchi H., Kanda K.,
Wagatumma M., Takahashi-Fujii A., Oshima A., Sugiyama A., Kawakami B.,
Suzuki Y., Sugano S., Nagahari K., Masuho Y., Nagai K., Isogai T.;
EMBL, AKI31568; BAD18701.1; -; mRNA.
                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Euarchontoglires, Primates, Catarrhini, Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ol-mak-2003 (TrEMBLrel. 23, Last sequence update)
Ol-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Mus musculus 13 days embryo male testis cDNA, RIKEN full-length
enriched library, clone:6030449F08 product:v-erb-b2 erythroblastic
leukemla viral oncogene homolog 2, neuro/glioblastoma derived oncogene
homolog (avian), full insert semuence [Pranamont]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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R GO; GO: GOGS549; F:ATP binding; IEA.

R GO; GO: 0005549; F:ATP binding; IEA.

R GO; GO: 0005540; F:atectron transporter activity; IEA.

R GO; GO: 0005474; F:protein setine/threonine kinase activity; IEA.

R GO; GO: 0004713; F:protein-tyrosine kinase activity; IEA.

R GO; GO: 0004872; F:receptor activity; IEA.

R GO; GO: 0006418; P:atectron transport; IEA.

R GO; GO: 0006418; P:atectron transport; IEA.

R GO; GO: 0006468; P:protein amino acid phosphorylation; IEA.

IN ECPPO: IPRO01450; Protein amino acid phosphorylation; IEA.

IN INCEPPO: IPRO02290; Ser_Ehr_Dkinase.

IN INCEPPO: IPRO02290; Ser_Ehr_Dkinase.

IN INCEPPO: IPRO02290; Ser_Ehr_Dkinase.

IN INCEPPO: IPRO02261; Tyr_Dkinase.

IN RODOM; PD000001; Prot_Kinase.

IN RNART; SM00220; TYC; I.

SWART; SM00220; TYC; I.

SWART; SM00220; TYC; I.

SWART; SM00220; TYC; I.

SWART; SM00219; TYCK; I.

R ROSITE; PS50011; PROTEIN KINASE ATP; I.

R ROSITE; PS50011; PROTEIN KINASE TYR; I.

R KINASE; R SWOLO?; TYCOSING-PPOOLEN KINASE.

R KINASE; R SWOLO?; TYCOSING-PPOOLEN KINASE.

R KINASE; R SWART; TYCOSING-PPOOLEN KINASE.

R KINASE; R TYCOSING-PPOOLEN KINASE.

R KINASE; R TYCOSING-PPOOLEN KINASE.

R TYCOSING-PPOOLEN TYCOSING-PPOOLEN TYCOSING-PPOOLEN TYCOSING-PPOOLEN TYCOSING-PPOOLEN TYCOSING-PP
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Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
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Pred. No. 0.46;
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                                                                                                    05-JUL-2004 (TrEMBLrel. 27, Last sequence update) 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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                                                                                                                                                      Hypothetical protein FLJ16821.
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                                                                        05-JUL-2004 (TrEMBLrel. 27,
                      QEZMM4 HUMAN PRELIMINARY;
Q6ZMM4;
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Q8COE7;
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                                                                                                                                                                                    Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                             NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
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HUMAN
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08C0E7 MO
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AC 08C0
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DE Mus
DE lenri
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NEULECTRIES SEQUENCE A., Fabbata K., Yoshino M., Itch M., Ishii Y.,

Nexawa T., Hara A., Fukunishi Y., Konno H., Kondo S., Yamanaka I.,

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Nexaba K., Matenda H.A., Ashburnar M., Batalov S., Casavant T.,

Nexaba K., Matenda H.A., Ashburnar M., Batalov S., Casavant T.,

Nexaba K., Matenda T., Gissi C., King B., Kochiwa H.,

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Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,

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Muroidea; Muridae; Murinae; Mus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequencing pipeline with 384 multicapillary sequencer.";
Genome Res. 10:1757-1771(2000).
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The PANTOM Consortium,
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P04626; Q14256; Q6LDV1; Q9UMK4;
13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
13-SEP-2005 (Rel. 98, Last annotation update)
Receptor tyrosine-protein kinase erbB-2 precursor (EC 2.7.1.112)
Receptor tyrosine-protein kinase erbB-2 precursor et grander (FI 2.7.1.112)
Receptor tyrosine (NEU proto-oncogene) (Tyrosine kinase-type cell surface receptor HER2) (MLN 19)
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Mammalia, Butheria, Euarchontoglires, Primates, Catarrhini, Hominidae,
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MEDLINE=86118663; PubMed=3003577;
Yamamoto T., Ikawa S., Akiyama T., Semba K., Nomura N., Miyajima N., Saito T., Toyoshima K.;
"Similarity of protein encoded by the human c-erb-B-2 gene to epidermal growth factor receptor.";
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SMART; SM00219; TyrKc; 1.
PROSITE; PS00107; PROTEIN KINASE ATP; 1.
PROSITE; PS00101; PROTEIN KINASE DOM; 1.
PROSITE; PS00109; PROTEIN KINASE TYR; 1.
ATP-binding; Kinase; Nucleotide-binding; Transferase;
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NUCLEOTIDE SEQUENCE, AND VARIANT ALA-1170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000494; EGFR L.
InterPro; IPR006212; Furin repeat.
InterPro; IPR006212; Furin repeat.
InterPro; IPR001245; Tyr pkinase.
InterPro; IPR001245; Tyr pkinase.
InterPro; IPR004019; VIP motif.
Pfam; PF01030; Recep L. domain; 1.
Pfam; PF02757; VLP; Z.
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Best Local Similarity 100.
Matches 10; Conservative
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Rieder M.J., Livingston R.J., Daniels M.R., Montoya M.A., Chung M.-W., Miyamoto K.B., Nguyen C.P., Nguyen D.A., Poel C.L., Robertson P.D., Schackwitz W.S., Sherwood J.K., Witrak L.A., Nickerson D.A., INIERS-SNPs, environmental genome project, NIERS ES15478, Department of Genome. Sciences, Seattle, WA (URL: http://egp.gs.washington.edu)."; Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE OF 1-191.
MEDLINE=87286898; PubMed=3039351;
Tal M., King C.R., Kraus M.H., Ullrich A., Schlessinger J., Givol D.;
"Human HER2 (neu) promoter: evidence for multiple mechanisms for
MEDLINE=86070181; PubMed=299974; Cousens E., Gray A., McGrath J., Cousens L., Yang-Peng T.L., Liao Y.C., Chen E., Gray A., McGrath J., Seburg P.H., Libermann T.A., Schlessinger J., Francke U., Levinson A., Ullrich A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IDENTIFICATION IN A COMPLEX WITH PIK3C2A AND EGFR, IDENTIFICATION IN COMPLEX WITH PIK3C2B AND EGFR, AND INTERACTION WITH PIK3C2B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X-RAY CRYSTALLOGRAPHY (2.4 ANGSTROMS) OF 654-662 IN COMPLEX WITH HLA
                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE [GENOMIC DNA], AND VARIANTS CYS-452; VAL-655 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=10805725;
Arcaro A., Zvelebil M.J., Wallasch C., Ullrich A., Waterfield M.D.,
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MEDLINE-94000186; PubMed-8104414;
Sarkar F.H., Ball D.E., Li Y.W., Crissman J.D.;
"Molecular cloning and sequencing of an intron of Her-2/neu (ERBB2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "A v-erbB-related protooncogene, c-erbB-2, is distinct from the c-erbB-1/epidermal growth factor-receptor gene and is amplified in a human salivary gland adenocarcinoma.";
Proc. Natl. Acad. Sci. U.S.A. 82:6497-6501(1985).
                                                                                                                                                    Levinson A., Ullrich A.;
"Tyrosine kinase receptor with extensive homology to EGF receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Mammary carcinoma;
MEDILIPE-85273297; PubMed-992089;
KING C.R., Kraus M.H., Adronson S.A.;
*Anglification of a novel v-erbB-related gene in a human mammary
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MEDLINE-20062861; PubMed-10593938; DOI=10.1074/jbc.274.51.36422;
Kubna J., Baralia M.A., Yan S., Collins B.J.; Potalia M.A., Yan S., Collins B.J.; Potalia M.A., Inc. Proceed to Hila-A2.1 is due to a prinding of a HER-2/neu epitope (GP2) to Hila-A2.1 is due to lack of interactions with the center of the peptide.";
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Swiercz J.M., Kuner R., Offermanns S.;
"Plexin-B1/RhoGEF-mediated RhoA activation involves the receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Class II phosphoinositide 3-kinases are downstream targets of activated polypeptide growth factor receptors."; Mol. Cell. Biol. 20:3817-3830(2000).
                                                                                                                                                                                                                              shares chromosomal location with neu oncogene."; Science 230:1132-1139(1985).
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MEDLINE=86016729, Pubmed=2995967;
Semba K., Kamata N., Toyodhima K., Yamamoto T.;
A. V-erbB-related protooncogene, c-erbB-2, is d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . Biol. Chem. 274:36422-36427(1999).
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Mol. Cell. Biol. 7:2597-2601(1987)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Science 229:974-976(1985).
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GO; GO: 0006468; P:protein amino acid phosphorylation; TAS.
DR GO; GO: 0007169; P:regulation of angiogenesis; NAS.
DR GO; GO: 0007169; P: regulation of angiogenesis; NAS.
DR InterPro; PR000494; BGFR.
DR InterPro; IPR000494; BGFR.
DR InterPro; IPR000404; BGFR.
DR InterPro; IPR000404; TYr_Dkinase.
DR InterPro; IPR001245; TYr_Dkinase.
DR InterPro; IPR001245; TYr_Dkinase.
DR InterPro; IPR001245; TYr_Dkinase.
DR InterPro; IPR001049; YIP_moil.
DR Pfam; PR00757; Purin. Like; I.
DR PRNTTS; PR00109; TYRKINASE.
DR PRINTS; PR00109; TYRKINASE.
DR PROFITE; PS00107; PROTEIN KINASE ATP; I.
DR PROSITE; PS00107; PROTEIN KINASE ATP; I.
DR PROSITE; PS00109; PROTEIN KINASE DOM; I.
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Mammalia, Eutheria, Buarchontoglires, Glires, Rodentla, Sciurognathi,
Muroidea, Muridae, Murinae, Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bargmann C.I., Hung M.-C., Weinberg R.A.;
"The neu oncogene encodes an epidermal growth factor receptor-related
profesin".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-1988 (Rel. 06, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
11-SEC-1998 (Rel. 48, Last sequence update)
Receptor tyrosine-protein kinase erbB-2 precursor (EC 2.7.1.112)
(p185erbB2) (C-erbB-2) (NEU proto-oncogene) (Epidermal growth factor receptor-related protein).
Name=Erbb2; Synonyms=Neu;
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Receptor tyrosine-protein kinase erbB-2. Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 51; DB 1; Length 1255; 100.0%; Pred. No. 1.3;
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MEDLINE-92035293; PubMed-1682063;
Masui T., Mann A.M., Macatee T.L., Garland B.M., Okamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
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Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases
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SIGNAL
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ATP (By similarity)
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MEDLINE=86118662; PubMed=3945311;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dest Local Similarion
watches 10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
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ERBB2_RAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Potential). Interacts with PRKCABP (By similarity). Binds PLXNB1. Part of a complex with EGFR and either PIK3C2A or PIK3C2B. May interact with PIK3C2B when phosphorylated on Tyr-1196.

-1- SUBCELLULAR LOCATION: Type I membrane protein.

-1- PTM: Ligand-binding increases phosphorylation on tyrosine residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (By similarity).

POLYMORPHISM: There are fours alleles due to the variations in positions 654 and 655. Allele BI (Ile-654/Ile-655) has a frequency of 0.782; allele B2 (Ile-654/Val-655) has a frequency of 0.206; allele B3 (Val-654/Val-655) has a frequency of 0.012. SIMILARITY: Belongs to the Tyr protein kinase family. EGF receptor
                                                                                                                                                                                                                               MEDITE=93194196; PubMed=8095488;

Ehsani A., Low J., Wallace R.B., Wu A.M.;

Ensarcterization of a new allele of the human ERBB2 gene by allele-
specific competition hybridization.";

Genomics 15:426-429(1993).

-!- FUNCTION: Essential component of a neuregulin-receptor complex,

althought neuregulins do not interact with it alone. GP30 is a
potential ligand for this receptor. Not activated by EGF, TGF-

alpha and amphiregulin.

-!- CATALYTIC ACTIVITY: ATP + a protein tyrosine = ADP + a protein

tyrosine phosphate.

-!- SUBUNIT: Heterodimer with each of the other ERBB receptors
             Cho H.-S., Mason K., Ramyar K.X., Stanley A.M., Gabelli S.B., Denney D.W. Jr., Leahy D.J.; "Structure of the extracellular region of HER2 alone and in complex with the Herceptin Fab."; Mature 421:756-760(2003)."
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GO:0005086; C:plasma membrane; NAS.
GO:0005086; F:epidermal growth factor receptor activity; NAS.
GO:0043125; F:epidermal growth factor binding; TAS.
GO:0046822; F:protein heterodimerization activity; NAS.
GO:00046822; F:protein heterodimerization activity; NAS.
GO:0004283; F:receptor signaling protein tyrosine kinase;
GO:0007507; F:receptor signaling protein tyrosine kinase;
GO:0007507; P:heart development; TAS.
GO:0030879; P:neumary gland development; TAS.
GO:0007399; P:neumory-geneais; TAS.
GO:0007399; P:neumory-geneais; TAS.
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EMBL; MI1762; AAA35808.1; JOINED; Genomic_DNA.
EMBL; MI1764; AAA35808.1; JOINED; Genomic_DNA.
EMBL; MI1764; AAA35808.1; JOINED; Genomic_DNA.
EMBL; MI1764; AAA35808.1; JOINED; Genomic_DNA.
EMBL; MI1730; AAA35808.1; JOINED; Genomic_DNA.
EMBL; MI1730; AAA35808.1; JOINED; Genomic_DNA.
EMBL; MI1730; AAA35808.1; -; Genomic_DNA.
EMBL; MI2036; AAA35808.1; -; Genomic_DNA.
EMBL; MI6791; AAA35803.1; -; Genomic_DNA.
EMBL; MI6792; AAA58637.1; -; Genomic_DNA.
EMBL; MI6792; AAA58637.1; -; Genomic_DNA.
EMBL; MI6791; AAA517.1; -; Genomic_DNA.
EMBL; MI6791; AAA517.1; -; Genomic_DNA.
EMBL; MI6791; AAA517.1; -; Genomic_DNA.
EMBL; MI6791; AAA571.1; -; Genomic_DNA.
EMBL; MI6791; AAA517.1; -; Genomic_DNA.
EMBL; MI6791; 
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VARIANTS VAL-654 AND VAL-655.
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1257 AA;
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ID ERBB2 CANFA
AC 018735;
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RA MEDLINE-92155181, PubMed=1346763,

Guillick W.J., Bottcomley A.C., Loftes F.J., Doak D.G., Mulvey D.,

RA MEDLINE-92155181, PubMed=1346763,

Guillick W.J., Bottcomley A.C., Loftes F.J., Campbell I.D.;

Newman R., Crumpton M.J., Sternberg M.J.E., Campbell I.D.;

"Three diamensional structure of the reasmembrane region of the proto-
oncogenic and oncogenic forms of the neu protein.";

EMBO J. 11:43-48[1992].

I. FUNCTION: Essential component of a neuregulin-receptor complex,
althought neuregulins do not interact with it alone. GP30 is a
potential ligand for this receptor. Not activated by EGF, TGF-
althought neuregulins do not interact with it alone. GP30 is a
potential ligand for this receptor. Not activated by EGF, TGF-
althought neuregulins.

C. GATALYTIC ACTIVITY: ATP + a protein tyrosine = ADP + a protein
tyrosine phosphate.

C. GATALYTIC ACTIVITY: ATP + a protein tyrosine = ADP + a protein
tyrosine phosphate.

C. GATALYTIC ACTIVITY: ATP + a protein tyrosine = ADP + a protein
tyrosine phosphate.

C. GATALYTIC ACTIVITY: ATP + a protein tyrosine with EGFR and
either PIXESCA or PIXESCA.

C. GATALYTIC ACTIVITY: ATP + a protein to a complex with EGFR and
either PIXESCA or PIXESCA.

EMBO TYPI-1198 (By similarity).

C. HORDELUTAR LOCATION: Type I membrane protein.

C. HORDELUTAR LOCATION: Type I membrane protein.

C. HORDELUTAR LOCATION: Type I membrane protein.
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SMART; SM0021; FU; 4.

SMART; SM00210; PROTEIN KINASE ATP; 1.

PROSITE; PS00107; PROTEIN KINASE DOM; 1.

PROSITE; PS00109; PROTEIN KINASE TYR; 1.

PROSITE; PS00109; PROTEIN KINASE TYR; 1.

MULtigene family; Nucleotide-binding; Phosphorylation; Kinase; Multigene family; Nucleotide-binding; Phosphorylation; Proto-oncogene; Receptor; Signal; Transferase; Transmembrane; Tyrosine-protein Kinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (By similarity). Selongs to the Tyr protein kinase family. EGF receptor
Smith R.A., Cohen S.M.;
"Direct DNA sequencing of the rat neu oncogene transmembrane domain reveals no mutation in urinary bladder carcinomas induced by N-butyl-N-(4-hydroxybutyl)nitrosamine, N-[4-(5-nitro-2-furyl)-2-thiazolyl]formamide or N-methyl-N-nitrosourea.";
Carcinogenesis 12:1975-1978(1991).
                                                                                                                                                                                                                  Lai C., Lemke G.;
"An extended family of protein-tyrosine kinase genes differentially
expressed in the vertebrate nervous system.";
Neuron 6:691-704(1991)
                                                                                                                                                 NUCLEOTIDE SEQUENCE OF 852-905.
TISSUE-Sciatic nerve;
MEDLINE-91222560; Pubmed-2025425; DOI=10.1016/0896-6273(91)90167-X;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GO; GO:0045595; P:regulation of cell differentiation; TAS. GO; GO:0042127; P:regulation of cell proliferation; TAS. InterPro; PR000494; EGFR. L. InterPro; IPR000434; EGFR. L. InterPro; IPR006211; Purin_like. InterPro; IPR006212; Purin_repeat. InterPro; IPR000719; Prof Kinase. InterPro; IPR000719; Prof Kinase. InterPro; IPR00149; Tyr pkinase. InterPro; IPR004019; Yir pkinase. AS. InterPro; IPR004019; Yir pkinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X03362; CAA27059.1; ALT INIT; MRNA.
EMBL; BC061863; AAH61863.1; ALT_INIT; MRNA.
PIR; A24562; TVFINU.
PIR; A24562; TVFINU.
ENSPB; 1NWY; X. FRY; C=23-631.
Ensembl; ENSRNOG0000006450; Rattus norvegicus.
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                                                                                                                                                                                                                                                                                                                           STRUCTURE BY NMR OF 650-668
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Interaction with PIK3C2B (By similarity)
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ATP (By similarity).
Phosphotyrosine (by autocatalysis) (By
                                                                                                                                                                                                                                                                    (By
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Mammalla; Butheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
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25-0CT-2014 (Rel. 45, Last sequence update)
13-88P-2005 (Rel. 48, Last annotation update)
Receptor tyrosine-protein kinase erbB-2 precursor (BC 2.7.1.112)
(p185erbB2) (C-erbB-2).
                                                                                                                                                                                                                                   similarity).
Phosphotyrosine (Potential).
Phosphotyrosine (by autocatalysis)
                                                                                                                                                                                                                                                                                                                                                                             (Potential)
                                                                                                                                                                                                                                                                                                                             (Potential)
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                                                                                                                                                                                                                                                                                                                                                              (Potential
             Receptor tyrosine-protein kinase
Extracellular (Potential).
Potential.
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                                                                                                                                                                                                                                                                                                                                                                                                            My similarity.

By similarity.
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iS -> CGLB (in Ref. 2).
6129264583011402 CRC64;
                                                                 Cytoplasmic (Potential)
Protein kinase.
                                                                                                                                                                                                                                                                                             (Glenac...
(Glenac...
(Glenac...
(Glenac...
(Glenac...
(Glenac...
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                                                                                                                                                                                                                                                                                         similarity)
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N-linked
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1141
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Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential). (Potential).
                                                                                                                                                                                                                                                                                                 E37364D49C4ACD46 CRC64;
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Watson P.A., Kim K., Chen K.-S., Gould M.N.;
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AN116182; AAMSO093.1; -; mRNA.
HSSP; P06494; LN8Y.
SWR; Q8K3F9; 26-633.
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Last annotation update)
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  (GlcNAc.
                                                                                                                                                                                                                                                                                                                          100.0%; Score 51; DB
100.0%; Pred. No. 1.3;
tive 0; Mismatches
                        By similarity.
                                                   eimilarity.
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PRINTS; PR00109; TYRKINASB.
ProDom; PD000001; Prot_kinase; 1.
                                                                                                                                                                                                                                                                                                   137991 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22, 01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                     Conservative
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QBK3F9 RAT PRELIMINARY;
QBK3F9;
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nes 10; Conserv
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                                     **Yokota H.;

"CDNA cloning of erbB-2 from canine mammary gland.";

"CDNA cloning of erbB-2 from canine mammary gland.";

"Lemitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.

"Lemitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.

"Interpolation of a neuregulin-receptor complex,

"Interpolation of the component of a neuregulin-receptor complex,

"Interpolation of the control of the complex with PRKCABP. Binds PLXNB1. Part of a complex with EGRR and either PIKGZBP. Binds PLXNB1. Part of a complex with EGRR and either PIKGZBP. Binds plantly).

"Interpolation of the control of the control of a complex with EGRR and either PIKGZBP. Binds plantly).

"Interpolation of the control of a complex with EGRR and either PIKGZBP. Binds plantly).

"Interpolation of the control of a complex with EGRR and either PIKGZBP. Binds plantly).

"Interpolation of the control of a complex with EGRR and either PIKGZBP. Binds plantly).

"Interpolation of the control of a complex with EGRR and either PIKGZBP. Binds plantly increases phosphorylation on tyrosine residues
                                                                                                                                                                                                                                                                                        This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                      (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Receptor tyrosine-protein kinase erbB-2.
Extracellular (Potential).
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PROSITE; PS50011; PROTEIN KINASE DOM; 1.
PROSITE; PS500011; PROTEIN KINASE TVR; 1.
ATP-binding; Glycoprotein; Kinase; Multigene family;
Nucleotide-binding; Phosphorylation; Receptor; Signal; Transferase;
Transmembrane; Tyrosine-protein kinase.
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(Potential).
(Potential).
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ATP (By similarity).
Phosphotyrosine (by autocatalysis)
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ATP (By similarity).
Interaction with PIK3C2B (By
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(Glcnac...)
(Glcnac...)
(Glcnac...)
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                                                                                                                                                                                                                                                                                                                                                                EMBL; AB008451; BAA23127.1; -; mRNA.
HSSP; P04626; 1N82.
SNR; O18735, 23-628.
Ensembl; ENSCARGO00016351; Canis familiaris.
InterPro; IPR000494; BGFR_L.
InterPro; IPR006311; Furin-like.
InterPro; IPR006311; Furin-like.
InterPro; IPR001315; Furin repeat.
InterPro; IPR001345; Tyr_Dinase.
InterPro; IPR001245; Tyr_Dinase.
InterPro; IPR001245; Tyr_Dinase.
InterPro; IPR004019; YuP_motif.
Pfam; PF00157; Furin-like; 1.
Pfam; PF00157; Furin-like; 1.
Pfam; PF00157; Furin-like; 1.
Pfam; PF00157; VID; 2.
PRINTS; PR00109; TYRKINASE.
PRODOM; PD000001; Proc_kinase; 1.
SMART; SM00261; FU; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity).
Phosphotyrosine
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                                TISSUE-Mammary gland
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NUCLEOTIDE SEQUENCE
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MEDLINEAL297043; PubMed=14621295;
Okazaki N., Kikuno R., Ohara R., Inamoto S., Koseki H., Hiraoka S., Saga Y., Nagase T., Ohara O., Koga H.;
Brediction of the coding sequences of mouse homologues of KIAA gene:
"Prediction of the coding sequences of 500 mouse KIAA-homologous
III. the complete nucleotide sequences of 500 mouse KIAA-homologous
CDNAs identified by screening of terminal sequences of cDNA clones
randomly sampled from size-fractionated libraries.";
DNA Res. 10:167-180(2003).
EMBL; AK129487; BAC98297.1; -; mRNA.
                                                                                                                                                                                                                                                                                                              Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Mus.
                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GO:0016324; C:apical plasma membrane; IDA.
GO:000537; C:cytoplasm; IDA.
GO:0005515; F:protein binding; IPI.
GO:0007507; P:heart development; IMP.
GO:0042552; P:myelination; IMP.
GO:0007422; P:peripheral nervous system development; IMP.
                                                                                       100.0%; Score 51; DB 2; Length 1259; 100.0%; Pred. No. 1.3;
                  PROSITE; PS00018; FF HAND; UNKNOWN 1.
PROSITE; PS00107; PROTEIN KINASE ATP; 1.
PROSITE; PS50011; PROTEIN KINASE DOM; 1.
PROSITE; P001109; PROTEIN KINASE TYR; 1.
SEQUENCE 1259 AA; 139101 MW; B724BD5CC33AE953 CRC64;
                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS, PRO0109; TYRKINASE.
Prodom; PD000001; Prot_kinase; 1.
SWART; SW00261; FU; 4.
SWART; SW00219; TYCK; 1.
SWART; SW00219; TYKC; 1.
PROSITE; PS00107; PROTEIN KINASE ATP; 1.
PROSITE; PS00109; PROTEIN KINASE DOM; 1.
ATP-binding; Kinase; Nucleotide-binding; Transferase.
                                                                                                                                                                                                                                                       05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
MKIAA3023 protein (ENGRENE).
Name-Erbb2; Synonyms-mKIAA3023;
                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ensembl; ENSMUSG0000062312; Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR006211; Furin-like.
InterPro; IPR006211; Furin-like.
InterPro; IPR006212; Furin-like.
InterPro; IPR006219; Proi prepat.
InterPro; IPR001299; Ser_thr_pkinase.
InterPro; IPR001249; Tyr_pkinase.
InterPro; IPR008266; Tyr_pkinase.
InterPro; IPR008266; Tyr_pkinase.
InterPro; IPR008266; Tyr_pkinase.
                                                                                                                                                                                                                    OGZPEO MOUSE PRELIMINARY; PRT; OGZPEO; 05-JUL-2004 (TrEMBLrel. 27, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam, PF00757; Furin-like; 1.
Pfam, PF01030; Recep L domain; 2.
Pfam, PF02757; YLP; 2.
                                                                                                              10; Conservative
                                                                                                                                                    11|||||||
777 VMAGVGSPYV 786
                                                                                                                                    1 VMAGVGSPYV 10
                                                                                                                                                                                                                                                                                                                                                                          NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , P11362; 1AGW.
Q6ZPE0; 72-679
                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                        Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nakamura T., Ushijima T., Ishizaka Y., Nagao M., Arai M., Yamazaki Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Buarchontoglires, Glires, Rodentia, Sciurognathi,
Muroidea, Cricetidae, Cricetinae, Mesocricetus.
                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Cloning and activation of the Syrian hamster neu proto-oncogene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=94193007; PubMed=7908275; DOI=10.1016/0378-1119(94)90553-3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene 140:251-255(1994).
-!- FUNCTION: Essential component of a neuregulin-receptor complex,
althought neuregulins do not interact with it alone. GP30 is a
potential ligand for this receptor. Not activated by EGF, TGF-
alpha and amphiregulin (By similarity).
-!- CATALYTIC ACTIVITY: ATP + a protein tyrosine = ADP + a protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 troshie phosphate.
-!- SUBUNIT: Heterodimer with each of the other ERBB receptors
-!- SUBUNIT: Heterodimer with each of the other ERBB receptors
(Potential). Part of a complex with EGFR and either PIK3C2A or PIK3C2B. Interacts with PRKCABP and PIXNB1. May interact with PIK3C2B when phosphorylated on Tyr-1196 (By similarity).
-!- SUBCLIGULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
13-SEP-2005 (Rel. 48, Last annotation update)
(p18-2005 (Rel. 48, Last annotation update)
(p18-ECPTO Tyrosine-protein kinase erbB-2 precursor (EC 2.7.1.112)
(p18-ECPED C-erbB-2) (NEU proto-oncogene)
Name-ERBB2; Synonyms-NEU;
Mesocricetus auratus (Golden hamster)
                                                                                                                                                                      ö
   1
143508 MW; A51D897408521860 CRC64;
                                                                                              100.0%; Score 51; DB 2;
100.0%; Pred. No. 1.3;
iive 0; Mismatches 0
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SMR; Q60553; 23-629.
InterPro; IPR0000494; BGPR L.
InterPro; IPR0006211; Furin-like.
InterPro; IPR000512; Purin repeat.
InterPro; IPR000719; Purin repeat.
InterPro; IPR000719; Prof Kinase.
InterPro; IPR0010245; Tyr pkinase.
InterPro; IPR004019; YiP motif.
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PIR; 148161; I48161.
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Pfam; PF02757; YLP; 2.
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                                                                                              Query Match 100.
Best Local Similarity 100.
Matches 10, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                         823 VMAGVGSPYV 832
                                                                                                                                                                                                                                           1 VMAGVGSPYV 10
   1
1305 AA;
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Thy (By similarity).

Phosphocyrosine (by autocatalysis)

similarity).
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Phosphotyrosine (by autocatalysis)
                                                                                                                                                                                                                                                                                                                                                                        (Potential)
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V -> E (in oncogenic NEU).
MW; 974C3791C21F2BE1 CRC64;
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10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
10-MAY-2005 (TREMBLREL. 30, Last annotation update)
10-MAY-2005 (TREMBLREL. 30, Last annotation update)
Name=erbb2; ORFNames=zgc:63601;
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Pred. No. 4.8;
1; Mismatches 0
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90.0%;
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1254 AA;
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Birren B., Nusbaum C., Abouelleil A., Allen N., Anderson S., Arachchi H.M., Barna N., Bastien V., Bloom T., Boguslavkiy L., Boukhgalter B., Butler J., Calvo S.E., Camarata J., Chang J., Choepel Y., Collymore A., Cook P., Cooke P., Corum B., Dearellano K., Diaz J.S., Dodge S., Dooley K., Dorris L., Elkins T., Engels R., Erickson J., Farceira P., FitzGerald M., Gage D., Galagan J., Gardyna S., Gnerre S., Graham L., Grand-Pierre N., Hafez N., Hagopian D., Hagos B., Hall J., Horton L., Hulme W., Iliev I.,
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Brachydanio rerio (Zebrafish) (Dānio rerio).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostarlophysi; Cypriniformes;
Cyprinidae; Danio.
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13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Hypothetical protein.
ORFNames-FG10685.1;
Glibberella zeae PH-1.
Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
Hypocreomycetidae; Hypocreales; Nectriaceae; Gibberella.
NCBI_TaxID=229533;
                                                                                                                                                                                                                                                                                                                                               Lyons D.A., Pogoda H.M., Voas M.G., Woods I.G., Diamond B., Ni Arana N., Jacobs J., Talbot W.S.;
Arana N., Jacobs J., Talbot W.S.;
Merbb3 and erbb2 Are Essential for Schwann Cell Migration and Myelination in Zebrafish.";
Curr. Biol. 15:513-524 (2005).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL, AND 14799, AAX09341.1; -; MRNA.

REMBL, AND 14799, AAX09341.1; -; MRNA.

ZFIN; ZDB-GENE-031118-121; ZGC:63601.

R InterPro; IPR00624; EGFR L.

R InterPro; IPR006212; Furin-like.

R InterPro; IPR006212; Furin-repeat.

R InterPro; IPR006212; Furin-repeat.

R InterPro; IPR002290; Furin-repeat.

R InterPro; IPR00245; Tyr_Dkinase.

R InterPro; IPR00145; Tyr_Dkinase.

R InterPro; IPR00145; Tyr_Dkinase.

R Pfam; Pf00157; Furin-like; 1.

R Pfam; Pf00109; Furin-like; 1.

R Pfam; Pf00109; TYRKINASE.

R Probom; P000001; Frot kinase; 1.

SMART; SM00220; STKC; 1.

R SMART; SM00220; TYKC; 1.

R PROSITE; PS00107; PROTEIN KINASE ATP; 1.

R PROSITE; PS00119; PROTEIN KINASE ATP; 1.

R PROSITE; PS00119; PROTEIN KINASE ATP; 1.
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Pogoda H.-M., Voas M.G., Talbot W.S.;
"Analysis of a zebrafish erbb2 gene.";
Submitted (JAN-2005) to the EMBL/GenBank/DDBJ databases.
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Q4HWH3 GIBZE
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Q4HWH3
AC
Q4HWH3
DT 13-SEP-2005 (TTEMBLrel. 31,
DT 13-SEP-2005 (TTEMBLrel. 31,
DE 13-SEP-2005 (TTEMBLrel. 31,
DE 13-SEP-2005 (TTEMBLrel. 31,
DE Hypothetical protein.
ORTHWARSES (TTEMBLrel. 31,
DE Hypothetical protein.
OR Channes FF410685.1,
Gibberella zeae PH-1.
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Matches 9; Conserv
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Q4H1F2_HUMAN
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QSJGCS PYR
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A Jaillon O. Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
A Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
A Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Segurens B.,
Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
A Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
Biemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
Craud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,
Kellis M., Volff JN., Guigo R., Zody M.C., Mesirov J.,
Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
Mincker P., Lander E.S., Weissenbach J., Roest Crollius H.;
"Genome duplication in the teleost fish Tetraodon nigroviridis reveals
                               Kells C., Landers T., Levine R., Lindblad-Toh K., Liu G., Lui A., Matchews C., Mabbitt R., MacCean C., Macdonald P., Major J., Manning J., Matchews C., Maucell E., McCarthy M., Meldrim J., Meneus L., Milova T., Mlenga V., Murphy T., Naylor J., Nguyen C., Nicol R., Nielsen C.B., Norbu C., O'Connor T., O'Donnell P., O'Neil D., Oliver J., Peterson K., Phunkhang P., Pierre N., Purcell S., Rachupka A., Ramasamy U., Raymond C., Retta R., Severy P., Smirnov S., Smith C., Spencer B., Stange-Thomann N., Stojanovic N., Stubbs M., Talamas J., Tesfaye S., Theodore J., Topham K., Travers M., Vassiliev H., Venkataraman V.S., Viel R., Vo A., Wang S., Wilson B., Wu X., Wyman D., Young G., Zainoun J., Zembek L., Zimmer A., Zody M.,
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Bukaryota; Metazoa; Chordata; Graniata; Vertebrata; Euteleostomi;
etrinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontidae; Tetraodontidae;
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13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Chromosome undetermined SCAF8938, whole genome shotgun sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAUTION: The sequence shown here is derived from an EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Fusarium graminearum genome sequence.";
Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
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SEQUENCE 519 Aa; 57083 MW; 4E4CE0E4972A2FA9 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACM01000446; EAA70307.1; -; Genomic_DNA.
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Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
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Archaea; Buryarchaeota; Thermococci; Thermococcales; Thermococcaceae;
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Kondo T., Horii A.;
"Exploration of siRNA Targeting EGFR as a Candidate for a Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PubMed=15710748; DOI=10.1101/gr.3003105; Pujiwara S., Imanaka T.; Fukui T., Atomi H., Kanai T., Mateumi R., Fujiwara S., Imanaka T.; "Complete genome sequence of the hyperthermophilic archaeon Thermococcus kodakaraensis KOD1 and comparison with Pyrococcus
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                                                     Length 270;
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Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
EMBL; AB221349; BAE15959.1; -; Genomic_DNA.
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270 AA; 30448 MW; 29F922C1476C58A8 CRC64;
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Last annotation update)
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Last annotation update)
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Pred. No. 26;
2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                               Probable fumarate hydratase, alpha subunit.
                                                   DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AP006878; BAD86154.1; -; Genomic DNA.
GO; GO:0016829; F:lyase activity; IEA.
InterPro; IPR004646; TtdA_fumA_fumB.
                                                                                         0; Mismatches
                                                   Score 42;
Pred. No. 1
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10-MAY-2005 (TrEMBLrel. 30, Last ann
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90.0%;
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70.0%;
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QSJGCS PYRKO PRELIMINARY;
QSJGCS;
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Best Local Similarity 70...
For 7; Conservative
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Q4H1F2;
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                                                                                           Conservative
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                                                                                                                                                                   126 VMAGVGSMYV 135
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es 9; Conserv
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         VÜCLEOTIDE SEQUENCE.
Yamanaka S., Sato M., Fujisaki R., Sakurada A., Inoue A., Nukiwa T.,
Kondo T., Horii A.;
"Exploration of siRNA Targeting EGFR as a Candidate for a Novel
Therapeutic Application in Lung Cancer.";
Submitted (JUL-2005) to the EMBL/GenBank/DBBJ databases.
BMBL, AB221350; BAEIS960.1; -; Genomic_DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                             1; Gaps
                                                             Score 40.5; DB 2; Length 63; Pred. No. 7.5; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78.4%; Score 40; DB 2; Length 65; 100.0%; Pred. No. 9.7; 0; Indels tive 0; Mismatches 0; Indels
1 1
63 63
63 AA; 6927 MW; EE62C915FB7B6D6A CRC64;
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65 AA; 7111 MW; BF169BFB4415620F CRC64;
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                                                             Query Match
Best Local Similarity 90.9%;
Matches 10; Conservative
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                                                                                                                             1 VMAGV-GSPYV 10
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NCBI_TaxID=9606;
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Search completed: April 11, 2006, 19:34:40 Job time : 233 secs

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April 11, 2006, 19:15:04; Search time 184 Seconds (without alignments) 23.879 Million cell updates/sec
GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd
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Gapop 10.0 , Gapext 0.5
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Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

geneseqp2003as:*geneseqp2003bs:* A Geneseq 21:* L: geneseqp1980s:* geneseqp1990s:* geneseqp2000s:* geneseqp2001s:*geneseqp2002s:* geneseqp2005s:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Tumour an Human HLA Immunogen MHC class Human HER Human HLA Human cER HER-2/neu HLA A2 bi Human Her Human HLA Immunogen HER2/neu HER2/neu HER-2/neu Human HER Human Her Aar61525 Peptide Description Aag88772 Abb76755 Aae26800 Abu63012 Ade97756 Adm12647 Aay37958 Aay45527 Aab99690 Aag89003 Aay46001 Aay46413 Aea36306 SUMMARIES ABU63012 ADE97756 ADM12647 **4EA36306** Length Query Score Result

Aag88941 HER2/neu	Adg38697 Human Her	Adw30548 HLA bindi	Adw30664 HLA bindi	Adp79932 Human HLA	_		Aam23398 HIV pepti	Aaw30834 TRP-2 der	Aam23323 HIV pepti	7 HIV	HΙV	Abp14013 HIV A02 8	Abp18334 HIV B58 8	Abp16406 HIV A24 8	Adn14184 HIV B cel	Adn64625 HLA bindi	Adp80235 Human HLA	Aam22702 HIV pepti	Aam22701 HIV pepti	Aag93812 Human com
9 4 AAG88941	9 7 ADG38697	9 7 ADW30548	9 7 ADW30664	9 B ADP79932	9 4 AAG88321	9 4 AAG88503	8 4 AAM23398	9 2 AAW30834	9 4 AAM23323	9 4 ABP14007	9 4 ABP19510	0 4 ABP14013	0 4 ABP18334	0 4 ABP16406	0 7 ADN14184 .	0 8 ADN64625	0 8 ADP80235	8 4 AAM22702	8 4 AAM22701	0 4 AAG93812
41 80.4	41 80.4	41 80.4	41 80.4	41 80.4	40 78.4	32 62.7	29 56.9	29 56.9	29 56.9	29 56.9	29 56.9	29 56.9 1	29 56.9 1	29 56.9 1	29 56.9 1	29 56.9 1	29 56.9 1	28 54.9	28 54.9	27 52.9 1
25	56	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

antigen; epitope; immunogenic target protein; PSA; HBVc; HBVs; EBV; HIVI; plasma specific antigen; hepatitis B virus; Epstein Barr; human immunodeficiency virus; human papilloma virus; p53; c-ERB2; MAGE-1; melanoma antigen; surface antigen; surface antigen; pharmaceutical composition; in vivo; ex vivo; therapeutic; diagnostic; MHC class I molecule; major histocompatability complex; HLA-A2.1; 9mer; 10mer; anchor; human leukocyte antigen. Peptide fragment (1.0738) of c-ERB2 binds HLA-A2.1. AAR61525 standard; peptide; 10 AA. (revised) 25-MAR-2003 11-MAY-1995 AAR61525 **AAR61525**

94WO-US002353 Homo sapiens. WO9420127-A1. 04-MAR-1994; 15-SEP-1994.

Kast 93US-00027146. 93US-00073205. 93US-00159184. Grey HM, Sette A, Sidney J, WPI; 1994-302678/37. (CYTE-) CYTEL CORP. 05-MAR-1993; 04-JUN-1993; 29-NOV-1993;

Immunogenic peptide(s) having an HLA-A2.1 binding motif - used for treatment or prophylaxis of cancer, virus infection or autoimmune diseases

Example 5; Page 108; 138pp; English.

AAR59496-R61666 are immunogenic 10mer peptides that contain a HLA-A2.1 binding motif. These peptides bind HLA-A2.1 and have a binding a affinity of at least 1% as compared to a reference peptide (AAR71293). AAR61525 has an ICS0 of 0.018 and the sequence occurs at position 773 in the human

Immunogen

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Synthetic.
                                                                                                AAW36826;
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Matches
                                AAW3682
                                                                                                  AAR97508 is a peptide capable of activating cytotoxic T lymphocytes (CTLs) which specifically target malignant cells. The peptide corresponds to amino acids 773-782 of human Her-2/Neu protein. CTL- activating peptides can be used in a vaccine for protecting against tumour cell formation. CTLs activated by the peptides will lyse tumour cells displaying specific peptides. Antibodies against CTL- activating peptides are useful for the identification of other similar compounds which may be useful for treating cancer or virally- infected cells, or for diadrans. The peptide and vaccines produced provide immunity to a high percentage of different ethnic groups, i.e. those with different HLA alleles
c-ERB2 gene product. Peptides of the invention can induce cytotoxic T lymphocytes which can react with target cells. They can be used for the treatment or prophlyaxis of cancer, eg. prostate cancer or lymphoma, etc. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        p53; Her-2; Neu; aa; amino acid; CTL; cytotoxic T lymphocyte; target; malignant cell; antigenic; vaccine; immunisation; activation.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytotoxic I lymphocyte-activating Her-2/Neu-specific peptide
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100.0%; Pred. No. 0.013;
ive 0; Mismatches 0; Indels
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2/neu protein, wherein each equence contains the anchor motif for human 2/neu protein, wherein each sequence contains the anchor motif for human calculations and the anchor motif for human calculations (HLA) A2.1. The present peptide is based on positions 773-782. The ability of these peptides to inhibit the binding of an influenza virus matrix protein peptides MI to HLA A2.1 restricted, cytotoxic T lymphocyte (CTL) clone. The present protein showed 55% inhibition. The peptides were also tested for their ability to elicit an immune response on vivo. However, only H3 (AAW36824) and H7 (AAW36826) were able to do this. H3 and H7 peptides are tumour-associated antigens, and were used to immunize a transgenic, non-human vertebrate (that has been modified to express at least one HLA antigen), so that the animal produces CTL which displays HLA-restricted T-cell receptor (TCR) specificity for the cantigen. Nucleic acid encoding variable regions of the alpha and beta chains of such TCRs can be amplified from CTLs produced in the above associated with a tumour and to treat tumours in humans. Transgenic mice are a more convenient source of CTL than the tumour-aing calculating are an ore convenient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleic acid encoding variable regions of HLA-restricted non-human T cell receptor specific for tumour antigen - used to identify tumour antigens and for tumour therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic peptides AAW36824-40 are based on the sequence of the human Her
                                                                                                                                                                                                                                                                                       Her-2/neu protein; human leukocyte antigen A2.1; HLA;
cytotoxic T lymphocyte; CTL; immune response; tumour-associated antigen;
T-cell receptor; TCR; tumour treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lymphocytes previously used. TCR can be humanised to reduce side-
reactions and short peptide derivatives of TCR are more economical to
produce than TCR itself, particularly when expressed as a single-chain
molecule rather than as a dimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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                                                                                                                                                                                                                          Immunogenic peptide H7 based on the human Her-2/neu protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
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100.0%; Pred. No. 0.013;
ive 0; Mismatches 0;
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AAW36826 standard; peptide; 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-US003611
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                                                                                                                                                 (first entry)
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
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                                                                                                                                                 23-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sherman LA,
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RESULT 4

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Gaps

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1 VMAGVGSPYV 10

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Matches

VMAGVGSPYV

Tyrosinase; tyrosinase cytotoxic lymphocyte response; cytotoxic T lymphocyte; cysteine-depleted; melanoma.

HER-2/neu synthetic peptide epitope 2.

(first entry)

16-NOV-1998

AAW77132

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HER-2/neu (cerB-2) antigen. The peptides can bind to a human leukocyte antigen (HLA), HLA-A2.1 and are used to exemplify the method of invention of producing antigen-specific cytotoxic T cells (CTLs) in vitro. The method comprises contacting immunogenic peptides from an antigen that indee class I major histocompatibility complex (MHC) molecules with antigen presenting cells (APCS) pretreated with pretreatment growth antigen presenting cells (APCS) pretreated with pretreatment growth factors, and incubating the APCS with purified CDS cells in the presence of at least 2 incubation growth factors, thereby producing antigen. Specifically killing target cells in a human patient is also provided which comparises obtaining a fluid sample containing CTLs from a patient, contacting the cytotoxic T cells with the pretreated with pre-treatment growth factors, where the APCS comprises class I MHC molecules. The pretreated APCS are incubated with composition contacted with a carrier to form a composition. The composition can then be administered to the patient. The activated CTLs which are contacted with a carrier to form a composition. The composition can then be administered to the patient. The activated CTLs which are treating cancers, immune disorders, viral infections, ADS, hepatitis, bacterial infection, fungal infection, malaria or tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Production of antigen-specific cytotoxic T cells - by incubating immunogenic peptide(s) from antigen that binds class I major histocompatibility complex molecules with pre-treated antigen presenting
                                                                                                                                                                                                                                                                                                                                                          human leukocyte antigen; HLA; tumour associated antigen; cancer; antigen presenting cell; APC; immunogenic peptide; immune disorder; viral infection; AIDS; hepatitis; bacterial infection; malaria;
                                                                                                                                                                                                                                                                                                                    Cytotoxic T lymphocyte; CTL; major histocompatibility complex; MHC;
                                                                                                                                                                                                                                    HER-2/neu derived HLA-A2.1 binding peptide 19 (residues 773-782).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fungal infection; tuberculosis; melanoma; HER-2/neu; cerB-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sette A,
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AAW70071 standard; peptide; 10 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US001959
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                                                                                                                                                   22-OCT-1998 (first entry)
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ses 10; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-AUG-1998
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Disease specific immunogen - comprises disease specific cytotoxic T lymphocyte epitope used to elicit melanoma specific CTL response.

Disclosure; Page 27; 93pp; English.

Kittlesen D;

Engelhard VH,

Slingluff CL, Hunt DF,

WPI; 1998-437388/37.

(UYVI-) UNIV VIRGINIA PATENT FOUND.

98WO-US001592.

29-JAN-1998; 30-JAN-1997;

WO9833810-A2

Synthetic.

06-AUG-1998.

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specific cytotoxic T lymphocyte response. These peptides are are cysteine-depleted mutants of a native disease-specific CTL epitope. The cysteine than the native epitope. The epitopes can be used in a disease-specific immunogen to protect a mammal against disease in particular melanomas. The peptides may also be used to screen a sample for the presence of an antigen with the same epitope, or with a different cross-reactive epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human leukocyte antigen A2 binding peptide; HLA class I A2; CTL; cytotoxic T-cell lymphocyte; tumour associated antigen; CEA; HER2/neu; MAGE2; MAGE3; p53; vaccine; cancer; cytostatic; immunomodulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                               The peptide epitope AAW77119-W77138 were created for human tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HLA A2 binding CTL epitope peptide from Her2/neu SEQ ID NO:11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 51; DB 2;
100.0%; Pred. No. 0.013;
iive 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB99690 standard; peptide; 10 AA.
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Best Local Similarity 100.
Matches 10; Conservative
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Gaps

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AAW77132 standard; peptide; 10 AA.

RESULT 5
AAW77132
ID AAW7
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VMAGVGSPYV 10

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1 VMAGVGSPYV 10
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(EPIM-) EPIMMUNE INC
                                                                                        WPI; 2001-374995/39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 10 AA;
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Synthetic.
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                                   Fikes J,
Keogh B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAG88772
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                                                                                                                                                                                                                                                                                                                The present invention describes a composition (I) comprising at least one peptide that comprises an isolated, prepared epitope consisting of a sequence selected from 25 short amino acid sequences given in AAB9960 to AAB99704. Also described are: (I) a composition (II) comprising one or more peptides, and further comprising at least two epitopes selected from the 25 short amino acid sequences (as above), where each of the one or more peptides comprise less than 50 contiguous amino acids that have 100% identity with a native peptide sequence; and (2) a vaccine composition (III) comprising an epitope selected from the 25 short amino acid and immunomodulatory activities and can be used in vaccine production and immunomodulatory activities and can be used in vaccine production and immunomodulatory activities and can be used in vaccine production and immunotherapy. The peptide epitope compositions (I)-(II) has cytostatic monitoring an immune response to a tumour seasoniated antigen or when one or more peptides are combined to create a vaccine (III) that stimulates the callular arm of the immune system. In particular, the vaccine mediates immune responses against tumours in individuals who bear an allele of the human leukocyte antigen (HIA)-A2 supertype and improve the callular deferments being treated for breast, colon, or lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; HER2/neu; epitope; human leukocyte antigen; HLA; T cell;
immune response; vaccine; tumour; cancer; cytostatic; immunostimulant;
tumour-associated antigen; T lymphocyte; cytotoxic T lymphocyte; CTL.
                                                                                                                                                                                                      Compositions for use in a vaccine for treating, e.g., breast, lung and colon cancer comprises at least one peptide that comprises an isolated epitope of a tumor-associated antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                             Keogh E;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HER2/neu epitope HLA-A2 supermotif-bearing peptide #16.
                                                                                                             Southwood S, Celis E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAG89003 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                  Claim 1; Page 76; 86pp; English
                                                                                                               Sette A, Sidney J,
   99US-0170448P.
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                   05-APR-2000; 2000US-00543608
30-MAY-2000; 2000US-00583200
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                                                                          (EPIM-) EPIMMUNE INC
                                                                                                                                                                  WPI; 2001-381489/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 10 AA;
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                                                                                                                                   Chesnut R;
                                                                                                               Fikes J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
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Best Loc Matches

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The present into present the proper of an epitope (1).

Also described are: (1) a clonal cytotoxic T lymphocyte (CTL) that is culture in vitro and binds to a complex of an epitope (1), bound to a culture in vitro and binds to a complex of an epitope (1), bound to a culture in vitro and binds to a complex of an epitope (1), bound to a culture lin vitro and the peptide is less than 50 contiguous amino acid and a second epitope and the peptide is less than 50 contiguous amino condition (11) and solidated nucleic acid encoding a peptide comprising (1) a vaccine composition (111) comprising (11). (1) has cytostatic and excipient; (4) an isolated nucleic acid encoding a peptide comprising (1). (11) are useful for inducing callular immune responses (1), (11) and (111) are useful for inducing callular immune responses (1), (11) and contioning or evaluating an immune response to a tumour-associated caring the presence of bound 7 lymphocyte to (1) or (11). Epitope (2) based vaccines mean that immunosuppressive epitopes that may be present continuated in whole protein antigen is eliminated. The vaccine can applity to direct and focus an immune response to multiple continuar apportunity to combine pitope-based anti-tumour continual provides the abplity to direct and focus an immune response to multiple cumour-associated molecules addressing the problem of tumour-cumour-associated molecules addressing the problem of tumour-cumour-associated molecules addressing the problem of tumour-cumour-associated molecules addressing the problem of tumour-cumour-variability and reducing the likelihood of tumour escape due to antigen loss. Add88266 to AAG89121 represent amino acid sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            present invention describes isolated prepared HBR2/neu epitopes (I).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; HER2/neu; epitope; human leukocyte antigen; HLA; T cell; immune response; vaccine; tumour; cancer; cytostatic; immunostimulant; tumour-associated antigen; T lymphocyte; cytotoxic T lymphocyte; CTL.
                                                                                                                                                                                                                                                                      An isolated prepared HER2/neu epitope useful in a vaccine for inducin
cellular immune responses for the prevention and treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
Sette A, Sidney J, Southwood S, Chesnut R, Celis E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HER2/neu A2 supermotif crossbinding peptide #16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG88772 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 189; 199pp; English.
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Best Local Similarity luv.
Best Local 10; Conservative
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Gross DA;

Scardino A,

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Antiviral; anti-HIV; cytostatic; epitope; HLA A2.1;
human leukocyte antigen; immunotherapy; cancer; viral infection; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                  Tumour antigen epitope HER-2/neu 773 presented by HLA A2.1.
                                                                                                                                                                                                                                                                                    / Match 100.0%; Score 51; DB 4; Length 10; Local Similarity 100.0%; Pred. No. 0.013; nes 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                             ABB76755 standard; peptide; 10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-2000; 2000FR-00009591
                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                1 VMAGVGSPYV 10
                                                                                                                                                                                                                                                                                                                             VMAGVGSPYV 10
             (EPIM-) EPIMMUNE INC
                                            WPI; 2001-374995/39
                                                                                                                                                                                                                                                                          Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                       31-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                 FR2812087-A1
10-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Unidentified
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                                                                                                                                                                                                                                                                                                                                                                          ABB76755;
                                                                                                                                                                                                                                                                                       Query Match
                         Fikes J,
Keogh B;
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Identifying subdominant or cryptic epitopes, useful in immunotherapy of cancer and viral infection, comprises testing modified, non-immunogenic peptides for induction of cytotoxic T cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention relates to subdominant/cryptic epitopes that are presented by HLA (human leukocyte antigen) Class I molecule A2.1. The epitopes or chimeric polypeptides contexining them and nucleic acid encoding them the useful for preventative or curative immunotherapy of cancer and viral infections, particularly where used as vaccines. The present peptide was used to illustrate the invention
                                                                                (INRM ) INSERM INST NAT SANTE & RECH MEDICALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; Page 12; 62pp; French.
                                                                                                                                                                         Kosmatopoulos K, Tourdot S,
21-JUL-2000; 2000FR-00009591.
                                                                                                                                                                                                                                                              WPI; 2002-189846/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAE26800;
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes isolated prepared HER2/neu epitopes (I).

Also described are: (1) a clonal cytocoxic T lymphocyte (CTL) that is culture in vitro and binds to a complex of an epitope (I), bound to a human leukocyte antigen (HLA) molecule; (2) a peptide (II) comprising (I) and a second epitope and the peptide is less than 50 contiguous amino active that look identity with a native peptide sequence of HER2/neu; (3) a vaccine composition (III) comprising (I) and a pharmaceutical excipient; (4) an isolated nucleic acid encoding (II). (II) has cytostatic and immunostimulant activities, and can be used in vaccines. (I), (II) and (III) are useful for inducing cellular immune responses for the prevention and treatment of cancer. (I) and (II) are useful for momentaling an immune response to a tumour-associated antigen when incubated with a T lymphocyte sample form a patient and detecting the presence of bound T lymphocyte to (I) or (II). Bitope can antigens may be avoided. Selected epitopes may be combined to in whole antigens may be avoided. Selected epitopes may be combined to contain the contain and the presence of bound T lymphocyte side effects caused by the presence of the passible pathological side effects caused by the presence of the passible pathological side effects caused by the presence of the passible pathological side effects caused by the presence of the passible pathological side effects caused by the presence of the passible pathological side effects caused by the presence of the passible pathological side effects caused by the passible pathological side effects caused and the passible pathological side
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        enhance immunogenicity. The possible pathological side effects caused by infectious agents or whole protein antigen is eliminated. The vacchine provides the ability to direct and focus an immune response to multiple selected antigens from the same pathogen. Epitope-based anti-tumour vacchines provides the opportunity to combine epitopes derived from multiple tumour-associated molecules addressing the problem of tumour variability and reducing the likelihood of tumour escape due to
                                                                                                                                                                                                                                                                                                                                                                                                            An isolated prepared HER2/neu epitope useful in a vaccine for inducing cellular immune responses for the prevention and treatment of cancer.
                                                                                                                                                                                        Celis E;
                                                                                                                                                                                        Chesnut R,
                                                                                                                                                                                        Southwood S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 2; Page 179; 199pp; English
                                                                                                                                                                                            Sette A, Sidney J,
         99US-00458299
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a method of treating a subject with cancer. The method involves combining the CD+8 cells, which are stimulated with non naturally occurring antigen-presenting cell (nnAPC) line, with adherent blood monocytes and inoculating the subject with CD8+ suspension. The
                                                                                                                                                                                                                                                                     Human; cancer; breast cancer; ovarian cancer; melanoma; cell therapy; epitope; human leucocyte antigen; HLA-A2.1.
                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peterson PA;
 Length 10;
                            0; Indels
                                                                                                                                                                                                                                             Human HLA-A2.1 restricted HBR-2/new peptide epitope #6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Moriarty A, Leturcq DJ, Jackson MR,
100.0%; Score 51; DB 5; 100.0%; Pred. No. 0.013;
                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 2; Page 92; 99pp; English.
                                                                                                                                                            AAE26800 standard; peptide; 10 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ORTH ) ORTHO-MCNEIL PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                 20-FEB-2001; 2001US-0270252P.
                                                                                                                                                                                                                                                                                                                                                                                                        19-FEB-2002; 2002WO-US005748.
                                                                                                                                                                                                                   (first entry)
                               Conservative
                                                           1 VMAGVGSPYV 10
                                                                                    1 VMAGVGSPYV 10
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           Local Similarity
see 10; Conserv
                                                                                                                                                                                                                                                                                                                                                 WO200265992-A2
                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Degraw J, M
Heiskala M;
                                                                                                                                                                                                                   13-DEC-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           suspension
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Gaps

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The invention relates to a novel method for treating viral infection in a subject. The method comprises preparing an antigen presentation cell lineage (mnAPC), collecting CD8+ cells from the subject, stimulating CD8+ cells using the nnAPC, culturing CD8+ cells in the presence of interleukin-2 (IL-2) and/or IL-7, mixing peripheral blood monocytes from the subject, subjecting the components to gamma irradiation, combining the CD8+ suspended solid to the subject. The method of the invention demonstrates virucide and cytostatic activities and may be useful for treating a viral infection or tumor in a subject via cell therapy. The current sequence is that of a human HER-2/new cytotoxic T-1ymphocyte epitope peptide of the invention which was incorporated into a Drosophila
method is useful for treating cancer e.g. ovarian cancer, breast cancer and melanoma etc. It is also useful in cell therapy. The present sequence is human leukocyte antigen A2 (HLA-A2).1 restricted peptide epitope used to treat breast and ovarian cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Treating a subject with cancer comprises combining the CD+8 cells, which are stimulated with non-naturally occurring antigen-presenting cell line, with adherent blood monocytes and inoculating the subject with CD8+
                                                                                                                                                                                                                                                                                                                                                                                                                               viral infection; virucide; cytostatic; tumor; neoplasm; cell therapy;
antigen; HER-2/neu.
                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Richards JM;
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                                                                                                                                                                                                                                                                                                                                                                                                               Human HER-2/neu 773-782 cytotoxic T-lymphocyte epitope peptide.
                                                                                                                  100.0%; Score 51; DB 5; Length 10; 100.0%; Pred. No. 0.013; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peterson PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; SEQ ID NO 16; 65pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jackson MR,
                                                                                                                                                                                                                                                                                                           AEA36306 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ORTH ) ORTHO-MCNEIL PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-NOV-2003; 2003JP-00377653.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-FEB-2001; 2001US-0270252P
                                                                                                                                                                                                                                                                                                                                                                                 11-AUG-2005 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Moriarty AM,
                                                                                                                                  Local Similarity 100
                                                                                                                                                                                       1 VMAGVGSPYV 10
                                                                                                                                                                                                           1 VMAGVGSPYV 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-667033/71.
                                                                                     Sequence 10 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUN-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Leturco DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  suspension
                                                                                                                                                                                                                                                                                                                                               AEA36306;
                                                                                                                       Query Match
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The invention relates to a polypeptide capable of specifically activating cytocoxic T lymphocytes (CTLs) in vivo which can then specifically target calistant cells, or having substantial homology with a CTL spitope, or its sequential subsets. Also included are a population of specific cytocoxic T cells capable of lysing tumour cells displaying a specific cytocoxic T cells capable of lysing tumour cells displaying a specific cytocoxic T cells capable of lysing tumour cells displaying a specific cytocoxic T cells that will target a specific population of cells, specifically cytocoxic cells in an individual using specific activated CTLs. CTLs response to a tumour-associated antigen, identifying specific CTLs responsive to a specific T cell epitope, detecting specific cTLs responsive to a tumour-associated antigen, identifying specific CTLs response to a tumour-associated antigen, in antibody molecule that immunoreacts with the polypeptide and a hybridoma crissue sample, detecting anti-p53 antibodies in an individual, an antibody molecule that immunoreacts with the polypeptide and a hybridoma copperifically killing target cells in an individual using specific. Cris and the absociated antigen in mammal and the reaction occurs crappone to a tumour-associated antigen in mammal and the reaction crapping in vitro. The CTL epitope peptide is useful for activating CTLs in vivo with specificity for particular antigenic peptides, and these activated cTLs are useful in the diagnosis and treatment of variety of disease conditions such as cancer, tumours, neoplasia, viral and retroviral infections, and autoimmune response. The tumour associated antigen Herronal antigen detections, and autoimmune response. The tumour associated antigen Herronal antigen detections, and autoimmune response. The tumour associated antigen Herronal antigen detections, and autoimmune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               activating cytotoxic T lymphocytes in vivo
                                                                                                                                                                                                                                                                                                                   CTL; cytotoxic C lymphocyte; epitope; p53; cytostatic; anti-tumour; virucide; immunosuppressive; vaccine; human; immune response; tumour-associated antigen; cancer; tumour; neoplasm; viral infection; retrovital infection; aucoimmune response; Her-2; Neu.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel polypeptide useful for activating cytotoxic which are useful in the diagnosis and treatment o conditions such as cancer, tumors, and neoplasia.
                                                                                                                                                                                                                                                                      Human Her-2/Neu-derived CTL epitope HER-7.
                                                                                                                                       ABU63012 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 5; Page 52; 77pp; English.
                                                                                                                                                                                                                             (first entry)
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Matches 10; Conservative
1 VMAGVGSPYV 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JS2003064916-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAR-1999;
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100.0%; Score 51; DB 5; Length 10; ilarity 100.0%; Pred. No. 0.013; Conservative 0; Mismatches 0; Indels

Query Match Best Local Similarity Matches 10; Conserv

Sequence 10 AA;

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terminus, and a second conserved residue at C-terminal position. The
throwthive peptide composition is used to elicit an immune response
against a desired antigen for preventing, treating or diagnosing
pathological states, e.g. prostate cancer, hepatitis B, hepatitis C,
AIDS, renal carcinoma, cervical carcinoma, lymphoma, cytomegalovirus
(CMV), and condlylloma acuminatum. It is also used to treat autoimmine
associated disorders, e.g. multiple sclerosis, rheumatoid arthritis,
Sjogren syndrome, scleroderma, polymyositis, dermatomyositis, systemic
upus erythematosus, juvenile rheumatoid arthritis,
spondylitis, myasthenia gravis (MG), bullous pemphigoid, pemphigus,
glomerulonephritis, Goodpasture's syndrome, autoimmune hemolytic anemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cytostatic; anti-inflammatory; hepatotropic; virucide; anti-HIV; nephrotropic; neuroprotective; antiarthritic; antirheumatic; harmonosuppressive; dermatological; muscular; nephrotropic; thyromimetic; haemostatic; antithyroid; antianaemic; anabolic; hypertenaive; mamunogenic peptide composition; immune response; prostate cancer; hepatitis B; hepatitis C; AIDS; renal carcinoma; cervical carcinoma; lymphoma; cytomegalovirus; CMV; condiplioma acuminatum; succinemana associated disorder; multiple sclerosis; theumatoid arthritis; systemic lupus exythematosus; juvenile rheumatoid arthritis; anylosing spondylitis; mysathenia gravis; MG; bullous pemphigoid; pemphigus; glomerulonephritis; Goodpasture's syndrome; autoimmune haemolytic anaemia; Hashimoto's disease; perinicious anaemia; autoimmune haemolytic anaemia; Hashimoto's disease; perinicious anaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            idiopathic thrombocytopenic purpura; Grave's disease; Addison's disease; human leukocyte anitgen A2.1; HLA A2.1; immunogenic HLA-A2.1 binding peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention describes an immunogenic peptide composition comprising 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunogenic peptide composition for preventing, treating or diagnosing pathological states, e.g. prostate cancer, hepatitis B and C, Acquired Immunodeficiency Syndrome, and renal carcinoma, includes conserved residues at specified positions.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Immunogenic HLA-A2.1 binding peptide #238.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 11; Page 25; 38pp; English.
                                                                                                                                                                                                                                   ADE97756 standard; peptide; 10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93US-00027146.
93US-00073205.
93US-00159184.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-APR-2002; 2002US-00116557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94US-00349177
                                                                                                                                                                                                                                                                                                                                                                    (first entry)
   VMAGVGSPYV 10
                                                           VMAGVGSPYV 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GREY/) GREY H M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (SIDN/) SIDNEY J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SETTE A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003185822-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-MAR-1993;
04-JUN-1993;
29-NOV-1993;
02-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                       12-FEB-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                     ADE97756;
                                                                                                                                                                RESULT 13
ADE97756
ID ACC ADE97756
XX ADE97756
DIT 12-FE
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The invention relates to a novel antigen presentation enhancing hybrid polypeptide. The novel polypeptide has an N-terminal element consisting of 4-16 residues of a mammalian 11-Key peptide and its non-N-terminal coff-file residues of a mammalian 11-Key peptide and its non-N-terminal deletion modifications, a chemical structure covalently linking the N-terminal element comprises an antigenic epitope of a C-terminal clement comprises an antigenic epitope, which is not on antigenic peptide binding site of an MHC class II molecule. The antigen presentation enhancing hybrid polypeptide has the following cativities: antibacterial, virucide, fungicide, antifheumatic, antibacterial, virucide, fungicide, antifheumatic, antidiabetic, and antithyroid. The antigen presentation antidial and fingle is useful for modulating the immune response in an individual and for treating infections (such as bacteria, nutus, parasite and fungus), rheumatoid arthritis, multiple sclerosis, lupus erythematosus, diabetes mellitus, myasthenia gravis, autoimmune
                                                                                                                                                                                                                  ö
Hashimoto's disease, pernicious anaemia, idiopathic thrombocytopenic purpura, Grave's disease, and Addison's disease. The invention defines positions within a motif enabling the selection of the peptides, which will bind efficiently to human leukcoyte anitgen (HLA) A2.1. This is the amino acid sequence of an immunogenic HLA-A2.1 binding peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel Ii-Key/antigen presentation enhancing hybrid polypeptide, useful for treating infections, rheumatoid arthritis, multiple sclerosis, lupus
                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antigen presentation enhancing hybrid polypeptide; mammalian Ii-Key; MHC class II; antibacterial; virucide; fungicide; antirheumatic; antiarthritic; neuroprotective; dermatological; immunosuppressive; antiinflammatory; antidiabetic; antithyroid; immune; rheumatod arthritis; multiple sclerosis; lupus erythematosus; adiabetes mellitus; myasthemia gravis; autoimmune thyroiditis; scleroderma; dermatomyositis; pemphigus.
                                                                                                                                                                                                                     ö
                                                                                                                                                                            100.0%; Score 51, DB 8; Length 10; 100.0%; Pred. No. 0.013;
                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MHC class I epitope of human Her-2/neu, 16-6-9.
                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 16; Page 55; 87pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                      ADM12647 standard; peptide; 10 AA.
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17-JUL-2002; 2002US-00197000.
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                                                                                                                                                                                                                       10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Humphreys R, Xu M;
                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003235594-A1.
                                                                                                                                    Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAY-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADM12647;
                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
ADM12647
                                                                                                                                                                                                                       Matches
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                                                                                                                                                                                                                                                                                                                                                          Antibacterial, Virucide, Fungicide, Antiparasitic, Antiarthritic, Antirheumatic, Neuroprotective, Antiinflammatory; Dermatological; Immunosuppressive, Antidabetic, Antithroid, Antiasthmatic, Antiallergic, Cytostatic, Antipsoriatic, Gene Therapy; Vaccine, Anticallergic, Cytostatic, Antipsoriatic, Gene Therapy; Vaccine, MHC Class II, Ii-key motif, immune response, anthrax; EBOLA, HIV, influenza, vaccinia virus, infection; bacterium; virus; parasite; fungus; rickettsia, rheumatoid arthritis; multiple sclerosis, lupus erythematosus; diabetes mellitus; mayasthenia gravis; autoimmune thyroiditis; scleroderma; dermatomyositis; pemphigus; asthma; allergic rhinitis; topical dermatitis; colitis; cancer; psoriasis;
thyroiditis, scleroderma, dermatomyositis and pemphigus. This sequence represents a mammalian Ii key related peptide epitope of the invention
                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New non-naturally occurring protein or polypeptide modified by recombinant DNA techniques, useful for treating multiple sclerosis, diabetes mellitus, myasthenia gravis, scleroderma, allergic rhinitis,
                                                                                                     ö
                                                     cn 100.0%; Score 51; DB 8; Length 10; 1 Similarity 100.0%; Pred. No. 0.013; 10; Conservative 0; Mismatata
                                                                                                                                                                                                                                                                                                                                 Human Her-2/neu MHC class II-presented epitope #67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 16; Page 57; 90pp; English.
                                                                                                                                                                                                                                       ADO38880 standard; peptide; 10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-SEP-2002; 2002US-00253286.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      colitis, cancer or psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-SEP-2002; 2002US-00253286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ANTI-) ANTIGEN EXPRESS INC
                                                                                                                                                                                                                                                                                                 15-JUL-2004 (first entry)
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                                                                      Query Match
Best Local Similarity
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                                             Sequence 10 AA;
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                                                                                                                                                                                                                                                                     ADO38880;
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The invention relates to a non-naturally occurring protein or polypeptide (I) modified by recombinant DNA techniques comprising: a C-terminal element comprising an MHC Class II-presented epitope; an N-terminal element comprising an II-key amotif; and an intervening element comprising a sequence of 4-11 amino acid residues where the modification by techniques taking place within elements (b) and (c). Also described are methods for: suppressing or enhancing an immune response directed toward an MHC (major histocompatibility complex) Class II-

presented epitope of interest. Suppressing an immune response directed toward an MHC Class II-presented epitope of interest comprises: providing a nucleic acid sequence encoding the MHC Class II-presented epitope of interest, the nucleic acid sequence encoding an Ii-Key motif located 4-11 amino acids upstream from the N-terminal residue of the MHC Class II-presented epitope of interest; and modifying the Ii-Key motif to decrease

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insure response directed toward an MHC Class II-presented epitope of interest comprises: providing a nucleic acid sequence encoding the MHC class II-presented epitope of interest, the nucleic acid sequence lacking an II-key motif located 4-11 amino acids upstream from the N-terminal cesidue of the MHC class II-presented epitope of interest; and modifying the mucleic acid sequence lacking an II-key motif located 4-11 amino acids upstream from the N-terminal consideration of the mucleic acid sequence to introduce an II-key motif appropriately spaced from the MHC class II-presented epitope. The protein or spaced from the MHC class II-presented epitope. The protein or colypeptide of interest corresponds to a protein or polypeptide of interest corresponds to a protein or polypeptide of interest corresponds to a protein or preferably vaccinia virus. The non-naturally occurring protein or preferably vaccinia virus. The non-naturally occurring protein or polypeptide (I) modified by recombinant DNA techniques is useful for polypeptide (I) modified by recombinant DNA techniques is useful for creating infectious agents. It is also useful for treating rheumatoid arthritis, multiple acleroderma, darbetes mellitus, myssthenia gravis, autoimmune thyroiditis, scoleroderma, demantomis, colitis, confitis, confitis, confitis, colitis, cancer, psoriasis or adenomas. The present sequence represents the amino acid sequence of an
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 51; DB 8; Length 10; 100.0%; Pred. No. 0.013;
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Sequence Seq Sequence Sequence Sequence

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Sequence:

Run on:

Searched:

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Sequence 29, Application US/08467083

Patent No. 5726023

GENERAL INCOMATION:

GENERAL INCOMATION:

APPLICANT: Cheever, Martin A.

APPLICANT: Cheever, Mary L.

TITLE OF INVENTION:

TITLE OF INVENTION: HER-2/NEU ONCOGENE IS ASSOCIATED

TITLE OF INVENTION: HER-2/NEU ONCOGENE IS ASSOCIATED

TITLE OF SEQUENCES: 6

CORRESPONDENCE ADDRESS:

ADDRESSEE: Seed and Berry

STREET: 6300 Columbia Center, 701 Fifth Avenue

CITY: Seattle

STATE: Washington
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MEDIUM TYPE: FOLDBY disk
COMPUTER READABLE FORM:

MEDIUM TYPE: FOLDBY disk
COMPUTER: IBM PC COMPATIBLE
OFFWARE: PREGREE PECHNICALION DATA:
APPLICATION NUMBER: US/08/467,083
FILING DATE: 06-JUN-1995
CLASSIFICATION NUMBER: US 08/414,417
PRIOR APPLICATION NUMBER: US 08/414,417
FILING DATE: 06-JUN-1995
TELECOMMUNICATION NUMBER: 92 0010.448C2
US-08-725-736D-8
US-08-725-736D-14
US-08-162-36B-8
US-09-162-36B-14
US-09-162-36B-14
US-09-161-877B-8
US-09-161-877B-14
US-09-101-877B-14
US-09-100-930A-14
US-09-239-043D-4
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      Sequence 29, Appl
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Sequence 95, Appl
Sequence 16, Appl
Sequence 12, Appl
Sequence 12, Appl
Sequence 263, Appl
Sequence 10, Appl
Sequence 10, Appl
Sequence 10, Appl
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                                                                                                                                                                                                April 11, 2006, 19:22:50 ; Search time 46 Seconds (without alignments) 17.973 Million cell updates/sec
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                            GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd
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. /cgn2_6/ptodata1/liaa/s_COMB.pep:*
. /cgn2_6/ptodata1/liaa/6_COMB.pep:*
. /cgn2_6/ptodata1/liaa/H_COMB.pep:*
. /cgn2_6/ptodata1/liaa/H_COMB.pep:*
. /cgn2_6/ptodata1/liaa/PCTMS.COMB.pep:*
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US-08-448-4178-29
US-08-448-427-29
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US-09-35-43-608-95
US-09-35-48-9
US-09-35-748-9
US-08-159-339A-263
US-08-159-339A-263
US-08-159-338-10
US-08-125-786-10
US-08-125-786-10
US-08-125-786-10
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Maximum Match 100%
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Gapop 10.0 , Gapext 0.5
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Perfect score:
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Gaps

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GENERAL INFORMATION:
APPLICANT: Cheever, Martin A.
APPLICANT: Cheever, Martin A.
APPLICANT: Disis, Mary L.
TITLE OF INVENTION: IMMUNE REACTIVITY TO HER-2/neu PROTEIN
TITLE OF INVENTION: FOR DIACNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE
TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 10;
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COMPUTER:
US
ZIP: 99104-7092

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: PatentIn Release #1.0, Version #1.25
SOFTWARE: OF JUN 1995
FILING DATE: 06-JUN 1995
FILING DATE: 06-JUN 1995
FILING DATE: 06-JUN 1995
                                                                                 MEDIJUM ALCOMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/486,348A
FILING DATE: 07-JUN-1995
CLIASIPICATION: 40-50
ATTORNEY AGENT INPORMATION:
NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 920010.448C6
FELENGHONE: (206) 682-6900
TELEPARE (206) 682-6031
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TURED OPERATOR OF THE COMPATION ACIDS THE COMPATION OF SEQ ID NO: 29:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B: Seed and Berry LLP 6300 Columbia Center, 701 Fifth Avenue
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Pred. No. 0.0097;
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Sequence 29, Application US/08468545B
Patent No. 5876712
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ZIP: YELL SELVENTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 10 amino acide
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed and
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Best Local Similarity
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STRANDEDNESS:
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US-08-486-348A-29
                                                                                                                                                                                                                                                       Sequence 29, Application US/08414417B
Patent No. 5801005
GENERAL INFORMATION:
APPLICANT: Cheever, Martin A.
APPLICANT: Disis, Mary L.
TITLE OF INVENTION: IMMONE REACTIVITY TO HER-2/neu PROTEIN
TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED
NUMBER OF SEQUENCES: 69
CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed and Berry LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Cheever, Martin A.
APPLICANT: Disis, Mary L.
TITLE OF INVENTION: POR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE
TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED
NUMBER OF SEQUENCES: 69
CORRESPONDENCE ADDRESS:
ADDRESSED: Seed and Berry LLP
ADDRESSED: ADDRESSED: ADDRESSED: CONTRESSED ADDRESSED: ADDRESSED ADD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B: Seed and Berry LLP
6300 Columbia Center, 701 Fifth Avenue
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NAME: Sharkey, Richard G.
REGISTATION UNDER: 32,629
REFERENCE/DOCKET NUMBER: 920010.448C2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
US-08-486-348A-29
US-08-486-348A-29
Sequence 29, Application US/08486348A
Patent No. 5846538
GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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Best Local Similarity 100.
Matches 10; Conservative
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                                                           VMAGVGSPYV 10
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US-08-414-417B-29
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US-08-414-417B-29
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STATE: WE
COUNTRY:
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OTHER INFORMATION: Description of Artificial Sequence: Fragment of
TOTHER INFORMATION: human protein
US-09-341-982-95
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Chesnut, Robert
APPLICANT: Epimune Inc.
TITLE OF INVENTION: HLA Class I A2 Tumor Associated Antigen
TITLE OF INVENTION: Peptides and Vaccine Compositions
TITLE REFREENCE: 01862-9105: 108/09/543,608A
CURRENT APPLICATION NUMBER: US/09/543,608A
CURRENT FILING DATE: 2002-04-05
NUMBER OF SEQ ID NOS: 52
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 16
LENGTH: 10
TITLE OF INVENTION: CYTOTOXIC LYMPHOCYTES, AND USES THEREFOR FILE REFERENCE: SLINGLUPF=3B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 10;
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                                                                                      EARLIER PLING DATE: 1998-01-592
EARLIER FILING DATE: 1998-01-29
EARLIER PLING DATE: 1998-01-31
NUMBER OF SEQ ID NOS: 104
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 95
LENGTH: 10
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                                             CURRENT APPLICATION NUMBER: US/09/341,982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 16, Application US/09543608A
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US-09-543-608A-16
                                                                     CURRENT FILING DATE: 1999-09-20
                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT ORGANISM: Artificial Sequence
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Best Local Similarity 100.
Matches 10; Conservative
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Best Local Similarity 100.
Matches 10; Conservative
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Sequence 29, Application US/08466680B

Sequence 29, Application US/08466680B

Parant No. 607512.

BENERAL INFORMATION:

APPLICANT: Cheever, Martin A.

APPLICANT: Cheever, Martin A.

TITLE OF INVENTION: IMMUNE REACTIVITY TO HER-2/neu PROTEIN

TITLE OF INVENTION: POR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE

TITLE OF INVENTION: HER-2/neu ONCOGENE IS ASSOCIATED

NUMBER OF SEQUENCES: 69
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APPLICANT: HUNT, Donald F.
APPLICANT: ENGELHARD, VICTOR H.
APPLICANT: KITTLESEN, DAVID
TITLE OF INVENTION: CYSTEINE-DEPLETED PEPTIDES RECOGNIZED BY A3-RESTRICTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                       100.0%; Score 51; DB 1; Length 10; 100.0%; Pred. No. 0.0097;
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Pred. No. 0.0097;
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ZIP: 98104-7092

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/466,680B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NDDRESSER: .Seed and Berry LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 424
CLASSIFICATION: 424
NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 32,629
REFERENCE/DOCKET NUMBER: 920010.448C4
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 95, Application US/09341982
Patent No. 6558671
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 29:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                       Conservative
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Washington
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    ; TOPOLOGY: linear
US-08-468-545B-29
                                                                                          Best Local Similarity
Matches 10; Conserv
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                                                                          Query Match
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APPLICANT: Kubo, Ralph T.
APPLICANT: Grey, Howard M.
APPLICANT: Grete, Alessandro
APPLICANT: Celis, Esteban
TITLE OF INVENTION: Hies Binding peptides and Their
TITLE OF INVENTION: Uses
NUMBER OF SEQUENCES: 1254
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Bighth Floor
CITY: San Francisco
                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 51; DB 4; Best Local Similarity 100.0%; Pred. No. 0.0097; Matches 10; Conservative 0; Mismatches 0
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OPERATING SYSTEM: DOS
SOFTWARE: PastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Nicolette, Charles
TITLE OF INVENTION: HER2 ANTIGENIC PEPTIDES
FILE REFERENCE: 126881309200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/527,487
CURRENT FILING DATE: 2000-03-16
NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 263, Application US/08159339A Patent No. 6037135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 9, Application US/09527487
Patent No. 6528060
  REGISTRATION NUMBER: 33,950
                     REFERENCE/DOCKET NUMBER: 4:
TELECOMMUNICATION INFORMATION
                                                                    TELEPHONE: (619) 554-2937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IBM Compatible
                                                                                     TELEFAX: (619) 554-6312
INPORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 92.2
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                , MOLECULE TYPE: peptide
PCT-US95-16415-12
                                                                                                                                                                                                                                                                                                                                                                                                 1 VMAGVGSPYV 10
                                                                                                                                                                                                                                                                                                                                                                                                                                               1 VMAGVGSPYV 10
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ORGANISM: Homo sapiens
US-09-527-487-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 MAGVGSPYV 10
                                                                                                                                                                                    TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MAGVGSPYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
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FOR DIAGNOSIS AND TREATMENT OF MALIGNANCIES IN WHICH THE HER-2/neu ONCOGENE IS ASSOCIATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.0%; Score 51; DB 2; Length 10; Best Local Similarity 100.0%; Pred. No. 0.0097; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 12, Application PC/TUS9516415
GENERAL INFORMATION:
APPLICANT: The Sorippe Research Institute
TITLE OF INVENTION: IN VIVO ACTIVATION OF TUMOR-SPECIFIC
TITLE OF INVENTION: CYTOTOXIC T CELLS
NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
ADDRESSEE: The Sorippe Research Institute
STREET: 10666 North Torrey Pines Road, TPC-8
                                                                                          ADDRESSEE: Seed and Berry LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: PC-DOS/MS-DOS .
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILLING DATE: 13-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Sharkey, Richard G.
REGISTRATION UNDRER: 32,629
REFERENCE/DOCKET NUMBER: 920010.448C9
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/354,533
FILING DATE: 15-JU1-1999
CLASSIPICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear SEQUENCE DESCRIPTION: SEQ ID NO: 29: US-09-354-533-29
                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC COMPATIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/355,558 FILING DATE: 14-DEC-1994 ATTORNEY/AGENT INFORMATION: NAME: LOGAN, APril C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 10 amino acids
                                           NUMBER OF SEQUENCES: 69
                                                                                                                                                                 STATE: Washington
                                                                                                                                                                                  COUNTRY: US
ZIP: 98104-7092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 13-DEC-1
CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                        CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 VMAGVGSPYV 10
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California
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Gaps

us-09-277-064-12.limited.rai

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APPLICANT: WANG, R.F.; ROSENBERG, S. A.
TITLE OP INVENTION: IDENTIFICATION OF TRP-2 AS
TITLE OF INVENTION: LYMPHOCYTES
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESSE:
ADDRESSES: MOKGAR & FINNEGAN, L.L.P.
STREET: 345 PARK AVENUE
CITY: NEW YORK
STATE: NEW YORK
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                  Length 9;
                                                                                                                                                                                                                                                                                                                                                                            1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
COMPUTER: IEM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MICROSOFT WORD 97
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/09/162,368
FILING DATE: 28-SEPT-1998
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/725,736
FILING DATE: 04-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/59,602
FILING DATE: 09-FEB-1996
ATTORNEY/AGENT INFORMATION:
NAME: KATHEYN M BROWN
REGISTRATION NUMBER: 34,556
REPREBUES/DOCKET NUMBER: 2026-424
TELEPRAN: (212) 751-6849
                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -09-162-368B-10
Sequence 10, Application US/09162368B
Patent No. 6083703
                                                                                                                                                                                                                                                                                                                                  56.9%;
62.5%;
TELEX: 421792
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: 421792
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                            5; Conservative
                                                                                                                                                                                                                                             IDENTIFICATION METHOD:
COTHER INFORMATION:
US-08-725-736D-10
                                                                            TYPE: AMINO ACID
STRANDEDNESS: SINGLE
TOPOLOGY: UNKNOWN
                                                                                                                                                               DESCRIPTION: PEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: AMINO ACID
STRANDEDNESS: SINC
TOPOLOGY: UNKNOWN
                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                     2 MAGVGSPY 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 LAGPGRPY
                                                                                                                                           MOLECULE TYPE:
                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 10, Application US/08725736D
Patent No. 5831016
GENERAL INFORMATION:
APPLICANT: WANG, R.F.; ROSENBERG, S. A.
TITLE OF INVENTION: LYMPHOCYTES
NUMBER OF INVENTION: LYMPHOCYTES
NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN & FINNEGAN, L.L.P.
STREET: 345 PARK AVENUE
CITY: NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 47; DB 2; Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZOP: 11: 54
ZOP: 11: 54
ZOMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/725,736D
FILING DATE: 04-OCT-1996
                                                                   PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/926,666
FILING DATE: 07-AUG-1993
APPLICATION NUMBER: US 08/027,746
FILING DATE: 05-MAR-1993
APPLICATION NUMBER: US 08/103,396
FILING DATE: 06-AUG-1993
ATTORNEY GENT INFORMATION:
NAME: Weber, Ellen Lauver
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 018623-0050
TELEFPHONE: (415) 576-0200
TELEFPAC: (415) 576-0300
               APPLICATION NUMBER: US/08/159,339A FILING DATE: 29-NOV-1993 CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/599,602
FILING DATE: 09-FBB-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match

Best Local Similarity 100.0%;
Matches 9; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (212) 758-4800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                   TELEX:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: IO aming acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: DOROTHY R. AUTH REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          , MOLECULE TYPE: peptide US-08-159-339A-263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 VMAGVGSPY 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: si
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
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Gaps

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 10;
Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: FLOPPY GIBE
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/172,707
FILING DATE: 12-DEC-1993
CLASSIFICATION: A35
PRICA APPLICATION DATA:
APPLICATION NUMBER: JP 362131/1992
FILING DATE: 28-DEC-1992
PRICA DATE: 30-SEC-1992
PRICATION NUMBER: JP 265416/1993
FILING DATE: 30-SEP-1993
ATPLICATION NUMBER: JP 265416/1993
RFILING DATE: NPORMATION:
NAME: TORNSEND, G. Kevin
NAME: TORNSEND, G. Kevin
REGISTRATION NUMBER: 34,0337ms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       52.9%; Score 27; DB 1;
83.3%; Pred. No. 1.5e+02
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     419 Seventh Street, N.W., Suite 300
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: April 11, 2006, 19:24:09 Job time : 46 secs
                                                                                                                                                                                                                                                                                                                                                . MARUTA, Kazu.....
KUBOTA, Michio
Toshiyuki
                                                                                                                                                                                                                                          US-08-172-707-5
; Sequence 5, Application US/08172707
; Patent No. 5455168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BROWDY AND NEIMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 amino acids
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Best Local Similarity 83.3
Matches 5; Conservative
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: 248633
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Washington
STATE: D.C.
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                                                       2 MAGVGSPY
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1 LAGPGRPY
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Matches
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                                                                                                                  셤
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US-09-161-877B-10
Sequence 10, Application US/09161877B
Sequence 10, Application US/09161877B
Sequence 10, Application US/09161877B
Sequence 10, Application US/09161877B
SEQUENCE INFORMATION: TO SEQUENCE SETENCE
SETTLE OF INVENTION: TO SEQUENCE TO SEQUENCE SETENCE SET
                                                                                                                                                                                                                Length 9;
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                                                                                                                                                                                                             Score 29; DB 2;
Pred. No. 4.6e+05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: FLOPPY DISK
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM
SOFTWARE: MICROSOFT WORD 97
CURRENT APPLICATION DATA:
PAPLICATION NUMBER: US/09/161,877B
FILING DATE: 28-EBFT-1998
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/75,736
FILING DATE: 04-OCT-1996
FILING DATE: 04-OCT-1996
FILING DATE: 09-PSB-1996
ATTORNEY/AGENT INFORMATION:
NAME: KATHERY M. BROWN
REGISTRATION NUMBER: 34,556
REFERENCE/DOCKET NUMBER: 2026-4243USZ
TELECOMMUTCATION: INFORMATION:
FEATURE:
NAME/KEY: TRP-2 PEPTIDE VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: TRP-2 PEPTIDE VARIANT
                                                                                                                                                                                                                56.9%;
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(212) 751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEX: 421792
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                             Query Match
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ) LOCATION;

; IDENTIFICATION METHOD:

; OTHER INFORMATION:

US-09-161-877B-10
                                                       LOCATION:
IDENTIFICATION METHOD:
COTHER INFORMATION:
US-09-162-368B-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: SINGLE
TOPOLOGY: UNKNOWN
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 10154
COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DESCRIPTION: PEPTIDE
                                                                                                                                                                                                                                                                                                                                            2 MAGVGSPY 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                    LAGPGRPY 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
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amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
US-08-812-393A-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JS-08-812-393A-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 16, Appl
Sequence 29, Appl
Sequence 29, Appl
Sequence 2352, Ap
Sequence 4335, Ap
Sequence 4422, Ap
Sequence 29, Appl
Sequence 29, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 49, Appl
Sequence 12, Appl
Sequence 12, Appl
Sequence 12, Appl
Sequence 16, Appl
Sequence 16, Appl
Sequence 235, Appl
Sequence 4422, Appl
Sequence 4422, Appl
Sequence 4422, Appl
Sequence 620, Appl
                                                                                                                            April 11, 2006, 19:23:29; Search time 163 Seconds (without alignments) 25.634 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence (
Sequence :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Published Applications AA Main: * /cgn2_6/ptodata/1/pubpaa/USO7_PUBCOMB.pep: * : /cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep: * : /cgn2_6/ptodata/1/pubpaa/USO11_PUBCOMB.pep: * : /cgn2_6/ptodata/1/pubpaa/USO11_PUBCOMB.pep: *
GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-277-074-12
US-09-277-064-12
US-10-080-013-16
US-10-245-871-620
US-10-149-138-786
US-10-149-138-4335
US-10-149-138-4435
US-10-149-138-4435
US-10-149-138-4435
US-10-149-138-4435
US-10-149-138-4435
US-10-149-138-4435
US-10-149-138-3352
US-10-149-138-3352
US-10-149-138-3352
US-10-149-138-3352
US-10-149-138-3352
US-10-149-138-3352
US-10-149-138-3352
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                                                                                                                                                                                                                                                                                                                                                                                  1867569 segs, 417829326 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                               protein search, using sw model
                                                                                                                                                                                                                                                                                                            BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                       US-09-277-064-12
51
                                                                                                                                                                                                                                                                  VMAGVGSPYV 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 10
                                                                                                                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                      OM protein
                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                      Sequence:
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Sequence 49, Application US/09774681

Sequence 49, Application US/09774681

Publication No. US20030208780A1

GENERAL INFORMATION:
APPLICANT: Suncl Molecular Corporatiopn

APPLICANT: Sharman, Linda
APPLICANT: Sharman, Linda
APPLICANT: Lustgarten, Joseph
TITLE OF INVENTION: RECOMBINANT CONSTRUCTS ENCODING T CELL
TITLE OF INVENTION: RECOMBINANT CONSTRUCTS ENCODING T CELL
TITLE OF INVENTION: RECOMBINANT CONSTRUCTS ENCODING T CELL
TITLE OF INVENTION: WUMBER: US/09/774,681

CURRENT APPLICATION NUMBER: US 08/812,393

PRIOR FILING DATE: 1997-03-05

PRIOR FILING DATE: 1996-03-05

NUMBER OF SEQ ID NOS: 65

SOFTWARE: PastSEQ for Windows Version 4.0

SEQ ID NO 49

LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 12, Application US/09277064

Publication No. US20030064916A1

GENERAL INFORMATION:

APPLICANT: Sherman, Linda A.

TITLE OF INVENTION: IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS

FILE REFERENCE: SCR21528

CURRENT PELING DATE: 1999-01-26

PRIOR APPLICATION NUMBER: US/09/277,064

CURRENT FILING DATE: 1999-12-14

PRIOR APPLICATION NUMBER: TOT/US95/16415

PRIOR PLING DATE: 1995-12-14

NUMBER OF SEQ ID NOS: 39

SEQ ID NO 12

LENGTH: 10
                                                                                                                                                                                                      Gaps
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                                                                                                                                                        DB 3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                   Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
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; SEQ ID NO 12; LENGTH: 10; TYPE: PRT; 70 ORGANISM: Homo sapiens US-09-277-074-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
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Best Local Similarity
Matches 10, Conserv
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                                                                                                                                                                           Sequence 29, Application US/09354533
Publication No. US20020055614A1
GENERAL INFORMATION:
APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: PRACTIVITY TO HER-2/neu PROTEIN
HER-2/neu ONCOGENE IS ASSOCIATED
HER-2/neu ONCOGENE IS ASSOCIATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-277-074-12

US-09-277-074-12

Sequence 12, Application US/09277074

Publication No. US20030022820A1

GENERAL INFORMATION:

APPLICANT: Sherman, Linda A.

TITLE OF INVENTION: IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS

FILE REFERENCE: SCR215S

CURRENT PELICATION NUMBER: US/09/277,074

CURRENT PELING DATE: 1994-03-26

PRIOR FILING DATE: 1994-12-14

PRIOR FILING DATE: 1994-12-14

PRIOR APPLICATION NUMBER: PCT/US95/16415

PRIOR APPLICATION NUMBER: PCT/US95/16415

WUMBER OF SEQ ID NOS: 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Seed and Berry LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match 100.0%; Score 51; DB 3; Best Local Similarity 100.0%; Pred. No. 0.016; Matches 10; Conservative 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Sharkey, Richard G.
REGISTRATION NUMBER: 32,629
REFERENCE/DOCKET NUMBER: 920010.448C9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/354,533
PILING DATE: 15-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE DESCRIPTION: SEQ ID NO: 29:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ELEFAX: (206) 682-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 29:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 63
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
     VMAGVGSPYV 10
                                        VMAGVGSPYV 10
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TITLE OF INVENTION: Integral
TITLE OF INVENTION: Integral
TITLE OF INVENTION: Integral
TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.0140001
CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2002-06-10
PRIOR APPLICATION NUMBER: US/00/31591
PRIOR PILING DATE: 1099-12-11
NUMBER OF SEC ID NOS: 4641
SEC ID NO 786
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Inducing Cellular Immune Responses to TITLE OF INVENTION: Inducing Cellular Immune Responses to TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions FILE REFERENCE: 2060.01400/149,138
CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2002-06-10
PRIOR APPLICATION NUMBER: PCT/US00/33591
PRIOR APPLICATION NUMBER: US 99/458,299
PRIOR PILING DATE: 1999-12-11
NUMBER OF SEQ ID NOS: 4641
SOFTWARE: Patentin Version 3.1
SEQ ID NO 2352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 51; DB 4; Length 10; 100.0%; Pred. No. 0.016;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ) OTHER INFORMATION: Artificially Synthesized Peptide US-10-149-138-786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
CTHER INFORMATION: Artificially Synthesized Peptide
US-10-149-138-2352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2352, Application US/10149138 Publication No. US20040018971A1 GENERAL INFORMATION:
                                                                  Sequence 786, Application US/10149138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Sette, Alessandro
APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Chesnut, Robert
APPLICANT: Celis, Esteban
APPLICANT: Keogh, Elissa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                       Publication No. US20040018971A1
GENERAL INFORMATION:
                                                                                                                                                            Sette, Alessandro
Sidney, John
Southwood, Scott
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 100 Matches 10; Conservative
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Best Local Similarity
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TITLE OF INVENTION: A CELL THERAPY METHOD FOR THE TREATMENT OF TUMORS
FILE REPERENCE: ORT-1557
CURRENT TILING DATE: 2002-02-19
CURRENT PILING DATE: 2002-02-19
NUMBER OF SEQ ID NOS: 42
SOFTWARE: Patentin version 3.1
SEQ ID NO 16
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: HUMPHREYS, ROBERT
APPLICANT: WIMPHREYS, ROBERT
TITLE OF INVENTION: I1-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
TITLE OF INVENTION: I1-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REFERENCE: REH-2013
CURRENT FILING DATE: 2003-01-09
PRIOR PAPLICATION NUMBER: 00/197,000
PRIOR PILING DATE: 2002-07-17
PRIOR FILING DATE: 2002-07-17
PRIOR FILING DATE: 1999-09-14
NUMBER OF SEQ ID NOS: 905
SEQ ID NOS: 905
LENGTHARE: PATENTIN VET: 2.1
SEQ ID NO 620
LENGTH. 10
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                     100.0%; Score 51; DB 3; Length 10; 100.0%; Pred. No. 0.016; tive 0; Mismatches 0; Indels
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100.0%; Pred. No.
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Publication No. US20030235594A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                      Sequence 16, Application US/10080013
Publication No. US20030077248A1
Query Match
Best Local Similarity 100.
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Best Local Similarity 100.
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Best Local Similarity 100.
Matches 10; Conservative
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                                                                                                               1 VMAGVGSPYV 10
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US-10-080-013-16
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ORGANISM: Homo sapiens
US-10-245-871-620
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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Artificial Peptide
US-10-149-138-4422
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sette, Alessandro
Sidney, John
Southwood, Scott
                                                                                                                                Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
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Best Local Similarity
Matches 10; Conserva
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                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Southwood, Scott
APPLICANT: Chanut, Robert
APPLICANT: Chanut, Robert
APPLICANT: Chanut, Robert
APPLICANT: Chanut, Robert
TILLE OF INVENTION: Lissa
TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.014001
CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2002-06-10
FRIOR APPLICATION NUMBER: PCT/US00/33591
FRIOR APPLICATION NUMBER: US 09/458,299
FRIOR APPLICATION NUMBER: US 09/458,299
FRIOR FILING DATE: 1999-12-11
NUMBER OF SEQ ID NOS: 4641
SOFTWARE: Patentin Version 3.1
SEQ ID NOS: 4635
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APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Southwood, Scott
APPLICANT: Celis, Esteban
APPLICANT: Keogo, Esteban
TITLE OF INVENTION: Inducing Cellular Immune Responses to
TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: AD6001
CURRENT APPLICATION NUMBER: US(10/149,138
CURRENT FILING DATE: 2002-06-10
PRIOR FILING DATE: 2001-12-11
PRIOR PILING DATE: 199-12-11
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             0; Indels
             0; Mismatches
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                                                                                                                                                                                                                                    Sequence 4315, Application US/10149138 Publication No. US20040018971A1 GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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SOFTWARE: PatentIn version 3.1
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APPLICANT: Sette, Alessandro
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Best Local Similarity 100.
Matches 10; Conservative
             10; Conservative
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SEQ ID NO 4422
LENGTH: 10
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APPLICANT: Chesnut, Scout
APPLICANT: Chesnut, Sobert
APPLICANT: Celis, Esteban
APPLICANT: Keogh, Elissa
TITLE OF INVENTION: Inducing Cellular Immune Responses to
TITLE OF INVENTION: Inducing Cellular Immune Responses to
TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions
TILE REFERENCE: 2060.0140001
CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2000-12-11
PRIOR APPLICATION NUMBER: PCT/US00/33591
PRIOR PILING DATE: 1090-12-11
PRIOR APPLICATION NUMBER: US 09/458,299
PRIOR PILING DATE: 1999-12-11
PRIOR PILING DATE: 1999-12-11
SOFTWARE: Patentin version 3.1
SEQ ID NO 4435
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Publication No. US20040058881A1

Publication No. US20040058881A1

Publication No. US20040058881A1

APPLICANT: HUMPHREXS.

TITLE OF INVENTION:

TITLE OF INVENTION: 11-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES

PILE REFERENCE: REH-2015

CURRENT FILING DATE: 2002-01-13

PRIOR APPLICATION NUMBER: 10/197,000

PRIOR PLING DATE: 1090-09-14

PRIOR PLING DATE: 1099-09-14

NUMBER OF SEQ ID NOS: 905

SOFTWARE PRECENTION VET: 2.1

SOFTWARE PRECENTION OF 2.1
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100.0%; Score 51; DB 4; Length 10; 100.0%; Pred. No. 0.016;
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                                                           0; Mismatches
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                                                                                                                                                                                                                                                                                                   Sequence 4435, Application US/10149138 Publication No. US20040018971A1 GENERAL INFORMATION:
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TITLE OF INVENTION: A CELL THERAPY METHOD FOR THE TREATMENT OF TUMORS FILE REPERENCE: ORT 1342CIP
CURRENT APPLICATION NUMBER: US/10/289,566
CURRENT FILING DATE: 2002-11-07
PRIOR APPLICATION NUMBER: US 60/270,252
PRIOR PILING DATE: 2001-02-20
PRIOR PILING DATE: 2001-02-19
RIOR PILING DATE: 2002-02-19
NUMBER OF SEQ ID NOS: 43
SOFTWARE: Patentin version 3.2
SEQ ID NO 16
LENGTH: 10
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APPLICANT: TOURDOT, SOPPILE
APPLICANT: SCARINO, ANTONIO
APPLICANT: GROSS, David, Alexandre
TITLE OF INVENTION: METHOD FOR SCREENING PEPTIDES FOR USE IN
TITLE OF INVENTION: IMMUNOTHERAPY
FILE REFERENCE: 33339/259034
                                                                                        Query Match
100.0%; Score 51; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels
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Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels
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CURRENT FILING DATE: 2003-10-02
PRIOR APPLICATION NUMBER: FR 0009591
PRIOR FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 70
SOFTWARE: PATENTIN VEY: 2.1
SEQ ID NO 31
LENGTH: 10
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US-10-289-566-16
Sequence 16, Application US/10289566
Publication No. US20040071671A1
GENERAL INFORMATION:
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Jackson, Michael R.
Peterson, Per A.
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ORGANISM: Artificial Sequence
PEATURE:
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-253-286-620
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100.0%; Score 51; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.016;
Matches 10; Conservative 0; Mismatches 0; Indels
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; ORGANISM: Artificial sequence
; FEATURE:
; CTHER INFORMATION: Synthetic peptide
US-10-333-430-31
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